MONTHLY NOTICES

OF THE

ROYAL ASTRONOMICAL SOCIETY

CONTAINING

PAPERS PUBLISHED IN THE PERIOD 1985 NOVEMBER TO DECEMBER

VOL. 217

(INCORPORATING ANNUAL INDEX VOLS 212–217)

EDITORIAL BOARD

DR M. J. BARLOW, DEPARTMENT OF PHYSICS AND ASTRONOMY, UNIVERSITY COLLEGE, LONDON
DR R. D. CANNON, ROYAL OBSERVATORY, EDINBURGH
DR M. G. EDMUNDS, DEPARTMENT OF APPLIED MATHEMATICS AND ASTRONOMY, CARDIFF
PROFESSOR A. C. FABIAN, INSTITUTE OF ASTRONOMY, CAMBRIDGE
DR D. R. FLOWER, DEPARTMENT OF PHYSICS, UNIVERSITY OF DURHAM
DR C. JORDAN, DEPARTMENT OF THEORETICAL PHYSICS, OXFORD
DR J. R. SHAKESHAFT, MULLARD RADIO ASTRONOMY OBSERVATORY, CAMBRIDGE
DR R. S. STOBIE, ROYAL OBSERVATORY, EDINBURGH
PROFESSOR R. J. TAYLER, UNIVERSITY OF SUSSEX ASTRONOMY CENTRE

Published for the Royal Astronomical Society by
Blackwell Scientific Publications
Oxford London Edinburgh Boston Palo Alto Melbourne

AUTHOR INDEX

ABBOTT D.C.
see WILLIAMS P.M.
ADAMS D.J.
see RUSSELL K.S.
ADAMS N.G.
see MILLAR T.J.
ADE P.A.R.
see RICHARDSON K.J.
ADE P.A.R.
see ROBSON E.I.
ADE PETER A.R.
see GEE GRAHAM
AGRAWAL P.C., MARKERT T.H., RIEGLER G.R. High spectral resolution observations of the coronal X-ray emission from the RS CVn binary Sigma Corona Borealis 213 761
AGUILAR Luis A.
see MERRITT David
AITKEN D.K., ROCHE P.F. 8-13 μm spectrophotometry of galaxies - IV. Six more Seyferts and 3C 345 ..... 213 777
AITKEN David K.
see ROCHE Patrick F.
AITKEN D.K., BAILEY J.A., ROCHE P.F., HOUGH J.M. Infrared spectropolarimetric observations of BNKL: the grain alignment mechanism 215 815
AITKEN DAVID K.
see ROCHE PATRICK F.
AKE III THOMAS B.
see NOORDANUS BARBARA
AKE T.
see CASSATELLA A.
ALEXANDER Paul. A radio study of 3C 390.3 - a precessing jet? 213 743
ALLEN A.J., YABUSHITA S. On dissipational processes during galaxy cluster relaxation 216 155
ALLEN A.J.
see HUGHES P.A.
ALLEN A.J.
see YABUSHITA S.
ALLEN D.A., ROCHE P.F., NORRIS R.P. Faint IRAS galaxies: a new species in the extragalactic zoo 213 67P
ALLEN D.A.
see PENSTON M.V.
ALLEN MICHELLE C. A mechanism for subpulse drift in pulsars 215 111
ALLEN SUE
see WARNER BRIAN
ALLINGTON-SMITH J.R.
see LILLY S.J.
ALLINGTON-SMITH J.R., LILLY S.J., LONGAIR M.S. Redshifts of radio sources in the 1-Jy sample 213 243
ANANTHAKRISHNAN S.
see VENUGOPAL V.R.
ANANTHAKRISHNAN S.
see VIJAYANARASIMHA USHA
ANDERSON E.
see BRINDLE C.
APPLETON P.N., SPARKS W.B., PEDLAR A., WILKINSON A. A search for neutral hydrogen in red elliptical galaxies. 217 779
ARELLANO FERRO A. A Periodicity and pulsational mode of five bright yellow supergiants 216 571
ARGUE A.N., HEBDEN J.C., MORGAN B.L., STANDLEY C., VINE H.A. Speckle interferometry of Hipparcos link stars - II 216 447
ARGYLE R.W.
see LA DOUS C.
ARNAUD K.A., BRANDUARDI-RAYMONT G., CULHANE J.L., FABIAN A.C., HAZARD C., McGLYNN T.A., SHAFER R.A., TENNANT A.F., WARD M.J. EXOSAT observations of a strong soft X-ray excess in MKN 841 ..... 217 105
ARNAUD K.A.
see FABIAN A.C.
ASHOK N.M.

see WILLIAMS I.P.
ATHERTON P.D.
see REAY N.K.
ATHERTON P.D., REAY N.K., TAYLOR K. The impact of nuclear activity on the disc of NGC 1068 ..... 216 17P
AUGENSEN H.J. A search for radial velocity variations in the central stars of southern planetary nebulae and planetary-like objects..... 213 399
AVERY L.W.
see RICHARDSON K.J.
AXON D.J.
see BAILEY JEREMY
AXON D.J.
see BRINDLE C.
BAART E.E., COHEN R.J. OH masers associated with compact H II regions in the G45.1+0.1 complex..... 213 641
BAAN W.A.
see NORRIS R.P.
BAGGALEY W.J.
see STEEL DUNCAN I.
BAHCALL John N., RATNATUNGA Kavan U. Comparisons of the Standard Galaxy Model with observations in two fields..... 213 39P
BAILEY J.
see WATTS D.J.
BAILEY J.A.
see AITKEN D.K.
BAILEY J.A.
see BRINDLE C.
BAILEY JEREMY, WATTS D.J., SHERRINGTON M.R., AXON D.J., GILES A.B., HANES D.A., HEATHCOTE S.R., HOUGH J.H., HUGHES S., JAMESON R.F., McLEAN I. An optical and near-infrared study of the AM Herculis-type binary CW 1103+254..... 215 179
BALBINSKI Eugene, DETWEILER Steven, LINDBLOM Lee, SCHUTZ Bernard F. The accuracy of the quadrupole approximation for the gravitational radiation from pulsating stars..... 213 553
BALBINSKI Eugene. A new shear instability in rotating, self-gravitating, perfect fluids 216 897
BALDWIN J.A., PHILLIPS M.M., CARSWELL R.F. Do some QSO low-ionization absorption systems arise in galactic discs? 216 41P
BALDWIN J.E., BOYSEN R.C., HALES S.E.G., JENNINGS J.E., WAGGETT P.C., WARNER P.J., WILSON D.M.A. The 6C survey of radio sources - I. Declination zone 80° 217 717
BALONA L.A., ENGELBRECHT C.A. Mapping of the beta Cepheid instability strip: the cluster NGC 6231..... 212 889
BALONA L.A., ENGELBRECHT C.A. Photometry and frequency analysis of line profile variables..... 214 559
BALONA L.A. On the amplitude decrease of the β Cephei stars Spica and 16 Lacertae 217 17P
BARNES JOSHUA. The dynamical state of groups of galaxies..... 215 517
BARNES Peter J.
see CASWELL J.L.
BARR P., WHITE N.E., PAGE C.G. The discovery of low-level iron K line emission from Cyg X-1 ..... 216 65P
BARROW John D., BHAVSAR Suketu P., SONODA D.H. Minimal spanning trees, filaments and galaxy clustering 216 17
BARROW John D., JUSZKIEWICZ R., SONODA D.H. Universal rotation: how large can it be?..... 213 917
BARROW John D., TIPLER Frank J. Closed universes: their future evolution and final state 216 395
BARROW John D.
see BHAVSAR Suketu P.
BARUCH J.E.F.
see SHALLIS M.J.
BASSANI L.
see SEMBAY S.
BATH G.T.
see CLARKE C.J.
BAYES F.A., SARAPH H.E., SEATON M.J. Collision strength for the [Ne II] line at 12.8 μm..... 215 85P

BELL R.A., EDVARDSSON B., GUSTAFSSON B. The surface gravity of Arcturus from MgH lines, strong metal lines and the ionization equilibrium of iron..... 212 497
BERRIMAN G., SZKODY P., CAPPS R.W. The origin of the infrared light of cataclysmic variable stars 217 327
BERTIN G.
see STIAVELLI M.
BETTWIESER ERICH. Evolution of multicomponent stellar systems..... 215 499
BETTWIESER Erich, INAGAKI Shogo. A gas model for multicomponent star clusters: method and comparison with Fokker-Planck theory..... 213 473
BETTWIESER ERICH, SUGIMOTO DAIICHIRO. Gravitational N-body problem and the validity of concepts of the gas model..... 212 189
BHATT H.C.
see JOSHI U.C.
BHATT H.C.
see WILLIAMS I.P.
BHAVSAR Suketo P.
see BARROW John D.
BHAVSAR Suketu P., BARROW John D. First ranked galaxies in groups and clusters..... 213 857
BIANCHINI Antonio
see SABBADIN Franco
BIČÁK JIŘÍ, JANIŠ VÁCLAV. Magnetic fluxes across black holes..... 212 899
BICKNELL G.V.
see COLEMAN C.S.
BIGGS J.D., HAMILTON P.A., McCULLOCH P.M., MANCHESTER R.N. The drifting subpulses of PSR 0148-06..... 214 47P
BIGGS J.D., McCULLOCH P.M., HAMILTON P.A., MANCHESTER R.N., LYNE A.G. A study of PSR 0826-34 - a remarkable pulsar..... 215 281
BINNEY JAMES, GERHARD ORTWIN E., HUT PIET. Structure of surfaces of section..... 215 59
BINNEY James, PETROU Maria. Structure of box-shaped bulges and other spheroidal components..... 214 449
BINNEY JAMES. Testing for triaxiality with kinematic data..... 212 767
BINNEY James
see GERHARD Ortwin E.
BIRKETT C.M.
see RUSSELL K.S.
BJÖRNSSON Claes-Ingvar Frequency-dependent polarization in blazars 216 241
BLACKMAN C.P.
see JENKINS C.R.
BLADES J. CHRIS
see WEST KYM A.
BLAES O.M. An upper limit to the growth rate of instabilities in constant specific angular momentum tori..... 212 37P
BLAES O.M. Oscillations of slender tori 216 553
BLAIR D.G., CANDY B.N. The Galactic population and birthrate of X-ray pulsars..... 212 219
BLANDFORD R.D., JAROSZYNSKI M., KUMAR S. On the stability and evolution of relativistic radiation tori: equations and speculations..... 215 667
BLANDFORD Roger, NARAYAN Ramesh. Low-frequency variability of pulsars..... 213 591
BODE M.F., KAHN F.D. A model for the outburst of nova RS Ophiuchi in 1985 ... 217 205
BODE M.F.
see EVANS A.
de BOER Klaas S., FITZPATRICK Edward L., SAVAGE Blair D. Abundances of O, Mg, S, Cr, Mn, Ti, Ni and Zn from absorption lines of neutral gas in the Large Magellanic Cloud in front of R136 ..... 217 115
BOGDAN T.J., LERCHE I. Diffusive shock acceleration in modified shocks..... 212 413
BOGDAN T.J.
see WEBB G.M.
BOHME D.K., RAKSIT A.B. New results for ion-molecule reactions of HC_3N in dense interstellar clouds..... 213 717
BOKSENSBERG A.
see BROMAGE G.E.
BOKSENBERG A.
see SAVAGE A.
BONNOR W.B. An open recollapsing cosmological model with $\Lambda=0$ 217 597

BOOTH A.J.
see SHALLIS M.J.
BOOTH R.S.
see NORRIS R.P.
BOOTH R.S.
see DIAMOND P.J.
BORNGEN F.
see KARACHENTSEV I.D.
BOSMA A., SMITH R.M., WELLINGTON K.J. Rotation and velocity dispersion in the stellar component of NGC 1316 (Fornax A)..... 212 301
BOYLE B.J., FONG R., SHANKS T., CLOWES R.G. A spectroscopic survey of faint ultraviolet excess stellar objects. 216 623
BOYSEN R.C.
see BALDWIN J.E.
BRANDUARDI-RAYMONT G., MASON K.O., MURDIN P.G., MARTIN C. Serendipitous EXOSAT sources in the region of the Coma cluster: active galactic nuclei with steep X-ray spectra 216 1043
BRANDUARDI-RAYMONT G.
see ARNAUD K.A.
BRANDUARDI-RAYMONT G.
see CORBET R.H.D.
BREBNER G.C.
see COHEN R.J.
van BREDA I.G.
see SPARKS W.B.
BREINHORST R.A., KARIMIE M.T. The light curve of TX Cassiopeiae: some preliminary results about an almost unknown EB-type binary 216 663
BRIDGELAND M.T.
see HEWETT P.C.
BRINDLE C., HOUGH J.H., BAILEY J.A., AXON D.J., SCHULZ H., KIKUCHI S., McGRAW J.T., WISNIEWSKI W.J., FONTAINE G., NADESU D., CLAYTON G., ANDERSON E., JAMESON R.F., SMITH R., WALLIS R.E. Coordinated multisite observations of the variability of BL Lac..... 214 619
BRODIE Jean P.
see HANES David A.
BROMAGE G.E., BOKSENBERG A., CLAVEL J., ELVIUS A., PENSTON M.V., PEROLA G.C., PETTINI M., SNIJDERS M.A.J., TANZI E.G., ULRICH M.H. Detailed observations of NGC 4151 with IUE - IV. Absorption line spectrum and variability..... 215 1
BROOKS A.
see CLARKE D.
BROWNE I.W.A., MANTOVANI F., MUXLOW T.W.B., PADRIELLI L., ROMNEY J.D. The variability and radio structure of 3C 159..... 213 945
BROWNE I.W.A., WRIGHT Alan E. Relativistic beaming and the optical magnitudes of QSOs..... 213 97
BROWNE I.W.A.
see WHYBORN N.D.
BROWN JOHN C., LORAN JON M. Possible evidence for stochastic acceleration of electrons in solar hard X-ray bursts observed by SMM..... 212 245
BROWN R.D., CRAGG D.M. Large-velocity-gradient modelling of Sagittarius B2. 215 395
BRUCK M.T., CANNON R.D. HAWKINS M.R.S. The colour-magnitude diagram of the halo of the Small Magellanic Cloud 216 165
BRUNNER A.J.
see TOZZI G.P.
BUNCLARK P.
see HEWETT P.C.
BUSHOUSE H., MELOTT A.L., CENTRELLA J., GALLAGHER III J.S. On the reliability of Virgo infall in estimating the mass density of the Universe 217 7P
BUSKO I.C.
see JABLONSKI F.
BUTLER K., MENDOZA C., ZEIPPEN C.J. Fits for photoionization cross-sections.. 213 345
BYRNE P.B., DOYLE J.G., MENZIES J.W. Optical photometry and spectroscopy of the flare star Gliese 229 (=HD 42581)..... 214 119
CALDWELL J.A.R., COULSON I.M. BVI reddenings of Magellanic Cloud Cepheids.... 212 879
CALDWELL J.A.R., COULSON I.M. Erratum: BVI reddenings of Magellanic Cloud Cepheids..... 214 639
CALDWELL John A.R.
see COULSON Iain M.

CALVANI M.
see NOBILI L.
CAMPBELL C.G. The maintenance of corotation in the strong polars..... 215 509
CANDY B.N.
see BLAIR D.G.
CANNON R.D.
see BRUCK M.T.
CANNON R.D.
see SAVAGE A.
CANTÓ J.
see RODRÍGUEZ L.F.
CAPPS R.W.
see BERRIMAN G.
CAREY W.C.
see WALLIS M.K.
CARNEY BRUCE W., PETERSON RUTH C. The rotational velocity of the rapidly oscillating Ap star HD 83368..... 212 33P
CAROFF LAWRENCE J.
see GEE GRAHAM
CARR B.J., IKEUCHI S. A hierarchical explosion scheme for the origin of cosmological structure..... 213 497
CARROLL T.J. A gravitational origin for the broad emission line profiles in quasars and Seyfert galaxies: time variation 214 321
CARSWELL R.F.
see BALDWIN J.A.
CARTER B., LUMINET J.P. Mechanics of the affine star model..... 212 23
CARTER B.S.
see FEAST M.W.
CARTER D., INGLIS I., ELLIS R.S., EFSTATHIOU G., GODWIN J.G. Kinematics and dynamics of the haloes of supergiant galaxies..... 212 471
CARVALHO JOEL C. An evolution model for compact double radio sources..... 215 463
CASSATELLA A., HOLM A., REIMERS D., AKE T., STICKLAND D.J. IUE high-resolution observations of Mira B 217 589
CASWELL J.L., BARNES Peter J. A new galactic supernova remnant, G312.4-0.4 .. 000 753
CATCHPOLE R.M.,
see WHITELOCK P.A.
CATCHPOLE R.M.
see FEAST M.W.
CAWSON M.G.M.
see KIBBLEWHITE E.J.
CAWTHORNE T.V. The influence of thermal plasma on synchrotron radiation 216 795
CENTRELLA J.
see BUSHOUSE H.
CHAPMAN JESSICA M., COHEN R.J. The unusual OH envelope of U Orionis..... 212 375
CHARLES PHILIP
see MUKAI KOJI
CHARNLEY Steven B.
see WATT Graeme D.
CHEUNG K.
see SAVAGE A.
CHOLONLEWSKI J. Bivariate luminosity function of E and SO galaxies..... 214 197
CHOLONLEWSKI J. Luminosity function of E and SO galaxies..... 214 189
CHRISTENSEN P.R.
see SOMMER-LARSEN J.
CLARIÁ J.J., LAPASSET E. New photometric data for the red giants in the open cluster NGC 5822: membership, chemical composition and physical properties... 214 229
CLARKE C.J., MANTLE V.J., BATH G.T. The eccentric binary model of superhumps..... 215 149
CLARKE D., BROOKS A. Narrow-band polarization measurements of late-type stars..... 212 211
CLARY D.C.
see MILLAR T.J.
CLAVEL J.
see BROMAGE G.E.
CLAYTON C.A., IVCHENKO V.N., MEABURN J., WALSH J.R. Echelle observations of the complex Hα and [N II] line profiles from the Galactic H II region M17 (NGC 6618)..... 216 761

CLAYTON G.
see BRINDLE C.
CLEGG R.E.S., WALSH J.R. Charge exchange of O^{3+} with H in planetary nebulae..... 215 323
CLEMENT R.
see SEMBAY S.
CLIFFORD Peter An interpretation of the mass and velocity spectrum of interstellar HI clouds..... 216 93
CLOWES R.G.
see BOYLE B.J.
CLOWES R.G.
see SAVAGE A.
CLUBE S.V.M., PAN R. The kinematic centre of the Galaxy 216 511
CODINA S.J.
see DE FREITAS PACHECO J.A.
COE M.J.
see HANSON C.G.
COE M.J.
see SEMBRAY S.
COHEN R.J., BREBNER G.C. An OH maser outburst in Cepheus A 216 51P
COHEN R.J.
see BAART E.E.
COHEN R.J.
see CHAPMAN JESSICA M.
COLE G.H.A., HERNIMAN J. Early thermal conditions and internal constitutions of the icy satellites 216 735
COLEMAN C.S., BICKNELL G.V. Jets with entrained clouds - I. Hydrodynamic simulations and magnetic field structure..... 214 337
COLLINS George W., II. The dynamical behaviour of SS 433..... 213 279
COLLINS George W. II, SMITH Robert Connon. The photometric effect of rotation in the A stars..... 213 519
COOKE B.
see FABIAN A.C.
COOK M.C. High-speed photometry of Z Chamaeleontis covering the 1983 March normal outburst 216 219
COOK M.C. High-speed photometry of the eclipsing dwarf nova OY Carinae..... 215 211
COOK M.C. X-ray emission from the cataclysmic variable PG0834+488..... 215 81P
COOK M.C.
see HORNE Keith
CORBET R.H.D., MASON K.O., CÓRDOVA F.A., BRANDUARDI-RAYMONT G, PARMAR A.N. Optical spectroscopy and photometry of the periodic X-ray transient A0538-66 (XO535-668) during an outburst and an OFF state..... 212 565
CORDEY RALPH A. The radio halo and active galaxies in the Coma cluster..... 215 437
CÓRDOVA F.A., MASON K.O., KAHN S.M. EXOSAT soft X-ray observations of EX Hydrae..... 212 447
CÓRDOVA F.A.
see CORBET R.H.D.
COSTA M.E.
see HAMILTON P.A.
COSTERO R.
see RODRÍGUEZ L.F.
COTTRELL P.L.
see NOORDANUS BARBARA
COUCHMAN H.M.P. Reheating of the intergalactic medium at z>10..... 214 137
COUCH WARRICK J., SHANKS T., PENCE W.D. CCD photometry of a cluster of galaxies at a redshift of 0.57..... 213 215
COUCH WARRICK J.
see SHARPLES RAY M.
COUCH Warrick J.
see ELLIS Richard S.
COULSON I.M.
see CALDWELL J.A.R.
COULSON Iain M., CALDWELL John A.R. The Cepheid HD 144972 and the problematic distance to the open cluster NGC 6067 ..... 216 671
CRAGG D.M.
see BROWN R.D.
CROPPER MARK. Simultaneous linear and circular polarimetry of EF Eri..... 212 709

CRUISE A.M., DODDS P.M. Accretion noise in Active Galactic Nuclei..... 215 417
CULHANE J.L.
see ARNAUD K.A.
CUNNINGHAM C.T.
see RICHARDSON K.J.
CUNNINGHAM CHARLES T.
see GEE GRAHAM
DA COSTA A.A., KAHN F.D. Pulsar elecrodynamics: the back reaction of the motion of charged particles..... 215 701
D'AMICO N.
see MANCHESTER R.N.
DAMEN E.
see VAN AMERONGEN S.
DANESE L.,
see FU-ZHEN CHENG
DANZIGER I.J., LEIBOWITZ E.M. Optical spectrophotometric study of supernova remnants in the Large Magellanic Cloud..... 216 365
DAVIES J.K.
see GREEN S.F.
DAVIES J.K.
see EVANS A.
DAVIES S.R.
see LITTLE L.T.
DAVIS R.J.
see FOLEY A.R.
DAWE J.A.
see RUSSELL K.S.
DE OLIVIERA A.K.G., SANTOS N.O., KOLASSIS C.A. Collapse of a radiating star..... 216 1001
DEASY H.P., WAYMAN P.A. Period change in Magellanic Cloud Cepheids..... 212 395
DEAN A.J.
see SEMBAY S.
DE FREITAS PACHECO J.A., CODINA S.J. The chemical composition of the Nova Muscae 1983 ejecta..... 214 481
DENT W.R.F., LITTLE L.T., SATO S., OHISHI M., YAMASHITA T. Near-infrared observations of the bipolar outflow source G35.2N 217 217
DENT W.R.F.,
see HEATON B.D.
DENT W.R.F.
see LITTLE L.T.
DESHPANDE M.R.
see JOSHI U.C.
DETWEILER Steven
see BALBINSKI Eugene
DE ZEEUW P.T., LYNDEN-BELL D. Best approximate quadratic integrals in stellar dynamics..... 215 713
DE ZEEUW TIM. Motion in the core of a triaxial potential..... 215 731
DE ZOTTI G.
see FU-ZHEN CHENG
DIAMOND P.J., NORRIS R.P., BOOTH R.S. Interferometric observations of the mainline OH maser emission from OH 27.8-0.0 ..... 216 1P
DIAMOND P.J., NORRIS R.P., ROWLAND P.R., BOOTH R.S., NYMAN L-A. The circumstellar envelopes around OH/IR stars..... 212 1
DIAMOND P.J.
see NORRIS R.P.
DÍAZ ANGELES I., PAGEL B.E.J., WILSON I.R.G. The intensities of the sulphur III lines and the ionization mechanisms in Liners..... 212 737
DÍAZ Angeles I., PAGEL B.E.J., TERLEVICH Elena. Sulphur III lines and the excitation mechanism in NGC 1052..... 214 41P
DIAZ Angeles I.,
see Tosi M.
DICKINSON A.S.
see SMITH G.
DI COCCO G.
see SEMBAY S.
DIEGO F., WALKER D.D. On the possibility of increasing the throughput of astronomical spectrographs by overfilling the dispersing element 217 347

DIEGO F.
see WALKER D.D.
DISNEY Michael
see PHILLIPPS Steven
DISNEY M.J.
see KIBBLEWHITE E.J.
DISNEY Michael, PHILLIPPS Steven The surface brightness of spiral galaxies - III. Correlations with other optical properties 216 53
DODDS P.M.
see CRUISE A.M.
DOHERTY L.R. A survey of Mg II h and k emission in near-solar type 217 41
DOMINY JAMES F.
see WALLERSTEIN GEORGE
DOMINY JAMES F., WALLERSTEIN GEORGE, SUNTZEFF NICHOLAS B. Line doubling in the 272-day long-period variable V Cancri..... 212 671
DONNISON J.R., WILLIAMS I.P. Orbital stability during the early stages of planetary formation 216 521
DONNISON J.R., WILLIAMS I.P. The hierarchical stability of satellite systems..... 215 567
DOSCHEK G.A., FELDMAN U., SEELY J.F. Element abundances from solar flare spectra 217 317
DOSCHEK G.A.
see FELDMAN U.
DOWNES A.J.B.
see PERRYMAN M.A.C.
DOYLE J.G.
see BYRNE P.B.
DRAPER P.W., WARREN-SMITH R.F., SCARROTT S.M. A polarization study of the cometary nebula Parsamyan 21..... 212 1P
DRAPER P.W., WARREN-SMITH R.F., SCARROTT S.M. Illumination of reflection nebulosity in the L1551 dark cloud by the infrared sources IRS5 amd L1551NE 216 7P
DRAPER P.W., WARREN-SMITH R.F., SCARROTT S.M. The source of illumination of the bipolar nebula near NGC 7129..... 212 5P
DREW J.
see TREVES A.
DREW J.E. A radiative ionization and thermal equilibrium model for the wind from P Cygni 217 867
DREW Janet, VERBUNT Frank. Investigation of a wind model for cataclysmic variable ultraviolet resonance line emission..... 213 191
DRURY L.O'C. Acoustic amplification in discs and tori 217 821
DWORETSKY M.M.
see MOON T.T.
DUFFETT-SMITH P.J.,
see REES W.G.
DUFTON P.L.
see HIBBERT A.
DUFTON P.L.
see KEENAN F.P.
DULEY W.W. Evidence for hydrogenated amorphous carbon in the Red Rectangle..... 215 259
DYCK H.M.
see SIMON THEODORE
DYSON J.E.
see PEDLAR A.
DYSON J.E.
see PERRY J.J.
DYSON J.E.
see SHULL PETER Jr.
EALES Stephen A. CCD magnitudes of 3C radio sources..... 213 899
EALES Stephen A. CCD observations of a rich distant cluster of galaxies (1046 + 35) containing a classical double radio source..... 214 27
EALES S.A. A sample of 6C radio sources selected at the peak of the source counts - I. A search for extended sources and multifrequency radio observations 217 149
EALES S.A. A sample of 6C sources selected at the peak of the source counts - II. Optical identifications 217 167

EALES S.A. A sample of 6C sources selected at the peak of the source counts - III. An investigation of the variation of the sizes of radio sources with cosmic epoch..... 217 179
EATON N., ZARNECKI J.C. Observations of Comet Crommelin - II. The dust component 217 659
EATON N.
see WILLIAMS I.P.
EDMUNDS M.G., GEORGE G.H. On the statistics of quasar alignments..... 213 905
EDVARDSSON B.
see BELL R.A.
EDWARDS D.A. Instability in the red star of semi-detached binary systems.... 212 623
EFSTATHIOU G. Constraints on decaying particles from Virgo infall..... 213 29P
EFSTATHIOU G., GORGAS J. Line-strength gradients in NGC 5813..... 215 37P
EFSTATHIOU G.
see CARTER D.
EFSTATHIOU G.
see SMITH R.M.
EGGLETON P.P.
see MELNICK Jorge
EGGLETON Peter P.
see WHTYE Charles A.
EKERS R.D.
see GOSS W.M.
ELLIS G.F.R.
see SIEVERS A.W.
ELLIS R.S.
see CARTER D.
ELLIS R.S.
see SMITH R.M.
ELLIS RICHARD S.
see SHARPLES RAY M.
ELLIS Richard S., COUCH Warrick J., MACLAREN Iain, KOO David C. Spectral energy distributions for galaxies in high-redshift clusters - II. 0016+16 at z=0.54 ..... 217 239
ELSMORE B.
see SEMBAY S.
ELSTON R.
see WALSH D.
ELVIS M.
see FABIAN A.C.
ELVIS M.
see MILLER L.
ELVIS Martin
see LAWRENCE A.
ELVIUS A.
see BROMAGE G.E.
EMERSON J.P.
see GEE GRAHAM
ENGELBRECHT C.A.
see BALONA L.A.
EVANS A., NORWELL G.A., BODE M.F. X-ray scattering by intergalactic dust..... 213 1P
EVANS A., WHITTET D.C.B., DAVIES J.K., KILKENNY D., BODE M.F. IUE observations of RCB stars during extinction minima 217 767
EVANS A., ZARNECKI J.C., McDONNELL J.A.M., BODE M.F., TAYLOR G.E., MORLEY T. Observations of Comet Crommelin - IV. Upper limit on the optical depth in the coma at ultraviolet wavelengths 217 669
FABIAN A.C., ARNAUD K.A., NULSEN P.E.J., WATSON M.G., STEWART G.C., MCHARDY I., SMITH A., COOKE B., ELVIS M., MUSHOTZKY R.F. An X-ray, optical and radio study of PKS 0745-191: a massive cooling flow 216 923
FABIAN A.C.
see ARNAUD K.A.
FABBIANO G.
see MILLER L.
FAIRALL A.P., MEABURN J. The structure of the [O III] nuclear region in the Seyfert 2 galaxy F-427 (ESO 263-G13) 216 439
FALLE S.A.E.G., WILSON M.J. A theoretical model of the M87 jet 216 79
FALLE S.A.E.G.

see WILSON M.J.
FALOMO R.
see TREVES A.
FARINELLA P., PAOLICCHI P., ZAPPALA' V. Original abundance of asteroids from their present rotational properties 216 565
FAULKNER JOHN
see LIN D.N.C.
FEAST M.W., WHITELOCK P.A., CATCHPOLE R.M., ROBERTS G., CARTER B.S. The extreme carbon star CRL 3099..... 215 63P
FEITZINGER J.V., SPICKER J. The vertical structure of galactic spiral arms: the velocity asymmetries in HI observations..... 214 539
FELDMAN U., DOSCHEK G.A., SEELY J.F. New identifications of Fe XVII spectral lines in solar flares..... 212 41P
FELDMAN U.
see SEELY J.F.
FELDMAN U.
see DOSCHEK G.A.
FERNLEY J.A.
see LONGMORE A.J.
FERRARI-TONIOLO M.
see SEMBAY S.
FERRARI-TONIOLO M.
see TAPIA M.
FERRO Arellano A. Periodicity and pulsational mode of five bright yellow supergiants 216 571
FIELD D. A semi-classical description of radiation transport in many-level astrophysical masers: competitive gain in OH hyperfine transitions 217 1
FIELD D., RICHARDSON I.M. Erratum: A semi-classical description of radiation transport in astrophysical masers (MN 211, p. 804)..... 213 495
FITZGERALD M.P.
see REED B.C.
FITZPATRICK Edward L.
see de BOER Klaas S.
FLOWER D.R., LAUNAY J.M. Rate coefficients for the rotational excitation of CO by ortho- and para-H_2..... 214 271
FLOWER D.R., PINEAU DES FORETS G., HARTQUIST T.W. Theoretical studies of interstellar molecular shocks - I. General formulation and effects of the ion-molecule chemistry 216 775
FLOWER D.R., WATT G.D. Erratum: On the ortho-H_2/para-H_2 ration in molecular clouds (MN 209, p.25)..... 213 991
FOLEY A.R., DAVIS R.J. MERLIN radio observations of the quasar 3C 273 ..... 216 679
FONTAINE G.
see BRINDLE C.
FONG R.
see BOYLE B.J.
FONG R.
see STEVENSON P.R.F.
FORSTER J.R., GOSS W.M., GARDNER F.F., STEWART R.T. A search for H_2CO emission towards OH masers 216 35P
FOSTER P.A., NELSON A.H. Vertical motions in the galaxies NGC 3938 and NGC 628..... 215 555
FOX Ken, WILLIAMS Iwan P. A possible origin for some ancient December fireballs 217 407
FOX Ken
see HUNT J.
FRANCESCHINI A.
see FU-ZHEN CHENG
FRANK J.
see KING A.R.
FRANK J.
see LONGMORE A.J.
FRENK C.S.
see SMITH R.M.
FU-ZHEN CHENG, DANESE L., DE ZOTTI G., FRANCESCHINI A. The optical luminosity function of Seyfert 1 nuclei..... 212 857
GALEA E.R., WOOD W.P. The oblique rotator 217 633
GALLAGHER J.S. III

see BUSHOUSE H.
GARAY G.
see RODRÍGUEZ L.F.
GARCÍA-BARRETO J.A.
see RODRÍGUEZ L.F.
GARDEN RON
see HAYASHI MASAHIKO
GARDNER F.F., WHITEOAK J.B. OH observations in the direction of H_2O masers in the Large Magellanic Cloud..... 215 103
GARDNER F.F.
see FORSTER J.R.
GATLEY IAN
see HAYASHI MASAHIKO
GEAR W.K., GEE G., ROBSON E.I., NOLT I.G. Thermal and non-thermal emission from NGC 1275 (3C 84) 217 281
GEAR W.K.
see ROBSON E.I.
GEE G.
see GEAR W.K.
GEE G.
see RICHARDSON K.J.
GEE GRAHAM, GRIFFIN MATTHEW J., CUNNINGHAM CHARLES T., EMERSON J.P., ADE PETER A.R., CAROFF LAWRENCE J. B335 - a candidate protostar?..... 215 15P
GEORGE G.H.
see EDMUNDS M.G.
GERHARD Ortwin E., BINNEY James Triaxial galaxies containing massive black holes or central density cusps 216 467
GERHARD ORTWIN E.
see BINNNEY JAMES
GERHARD Ortwin E.
see SADLER Elaine M.
GERHARD Ortwin E.
see SADLER Elaine M.
GHOSH S.K., TANDON S.N. Far-infrared emission from dust clouds with two embedded sources..... 215 315
GILES A.B.
see BAILEY JEREMY
GILES A.B.
see WATTS D.J.
GILMORE Gerard, REID Neill, HEWETT Paul. New light on faint stars - VII. Luminosity and mass distributions in two high galactic latitude fields..... 213 257
GIOMMI P.
see PRAVDO S.H.
GLASS I.S., MOORWOOD A.F.M. JHKL properties of emission-line galaxies..... 214 429
GLASS I.S., REID Neill. A survey for red variables in the LMC I..... 214 405
GLEDHILL T.M.
see WARREN-SMITH R.F.
GLENN J.
see RICHARDSON K.J.
GODWIN J.G.
see CARTER D.
GOLDREICH Peter, NARAYAN Ramesh. Non-axisymmetric instability in thin discs.. 213 7P
GONDHALEKAR P.M. Depletion of elements in shock-driven gas 216 57P
GONDHALEKAR P.M. Depletion of sulphur in the interstellar medium 217 585
GOOD A.R.
see MORGAN D.H.
GOODMAN Jeremy, NARAYAN Ramesh. Slow pulsar scintillation and the spectrum of interstellar electron density fluctuations..... 214 519
GOPAL-KRISHNA
see SINGAL ASHOK K.
GORGAS J.
see EFSTATHIOU G.
GOSS W.M., SCHWARZ U.J., VAN GORKOM J.H., EKERS R.D. The Sgr A East H II complex at l= -0°.02, b= -0°.07..... 215 69P
GOSS W.M., TILANUS R.P.J. Westerbork 6-cm observations of H_2CO: absorption in the direction of W49A..... 215 197
GOSS W.M.

see FORSTER J.R.
GORAYA P.S. Continuum energy distribution and photometric behaviour of π Aqr 215 265
GRAHAM D.A.
see HEWISH A.
GRAY PETER M.
see SHARPLES RAY M.
GREENBERG J Mayo.
see VAN DE BULT C.E.P.M.
GREEN D.A. Observations of compact radio sources in the Galactic plane 216 691
GREEN S.F., MEADOWS A.J., DAVIES J.K. Infrared observations of the extinct cometary candidate minor planet (3200) 1983TB 214 29P
GREENHILL J.G.
see WATTS D.J.
GRIFFIN MATTHEW J.
see GEE GRAHAM
GRIFFIN M.J.
see RICHARDSON K.J.
GRIFFIN R.F. Photoelectric radial velocities, Paper XII. The orbits of another four spectroscopic binaries in the Clube Selected Areas 212 663
GRIFFITHS W.K.
see WILLIAMS I.P.
GRIFFITHS W.K.
see WILLIAMS I.P.
GUILBERT P.W., STEPNEY SUSAN. Pair production, Comptonization and dynamics in astrophysical plasmas 212 523
GULL Stephen F.
see TAN Sze M.
GUNN J.E.
see LILLY S.J.
GUSTAFSSON B.
see BELL R.A.
GUTHRIE B.N.G. New line identifications in the blue spectra of Hg-Mn stars 216 1
GUTHRIE B.N.G. The distribution of the rotation axes of A-type stars 215 545
HALES S.E.G.
see BALDWIN J.E.
HALL P.J.
see HAMILTON P.A.
HAMILTON P.A.
see BIGGS J.D.
HAMILTON P.A., HALL P.J., COSTA M.E. Changing parameters along the path to the Vela pulsar 214 5P
HAMILTON P.A.
see BIGGS J.D.
HANES D.A.
see SCHWARZENBERG-CZERNY A.
HANES David A., BRODIE Jean P. UBVRI multi-aperture photometry for 71 globular clusters in our own Galaxy 214 491
HANES David A. The recurrent nova U Scorpii in post-outburst quiescence 213 443
HANES D.A.
see BAILEY JEREMY
HANSON C.G.
see SEMBAY S.
HANSON C.G., COE M.J. The ultraviolet variability of the BL Lacertae object OJ287 ..... 217 831
HARNETT J.I., REYNOLDS J.E. Radio continuum observations of four edge-on spiral galaxies 215 247
HARTQUIST T.W.
see FLOWER D.R.
HARTQUIST T.W.
see MOUNTAIN C.M.
HASCHICK A.D.
see NORRIS R.P.
HASEGAWA TETSUO
see HAYASHI MASAHIKO
HASSALL B.J.M., PRINGLE J.E., VERBUNT F. Dwarf novae in outburst: monitoring

WX Hydri with IUE. 216 353
HASSALL B.J.M. A superoutburst of the dwarf nova EK Trianguli Australis 216 335
HASSALL B.J.M.
see LA DOUS C.
HAWKINS M.R.S., WOLTJER L. Evidence for underlying galaxies in a complete sample of variable quasars..... 214 241
HAWKINS M.R.S. Comparison of the quasar populations in two fields 216 589
HAWKINS M.R.S.
see BRUCK M.T.
HAYASHI MASAHIKO, HASEGAWA TETSUO, GATLEY IAN, GARDEN RON, KAIFU NORIO. The molecular hydrogen emission associated with the Orion bright bar..... 215 31P
HAZARD C.
see ARNAUD K.A.
HE X.T.
see HEWETT P.C.
HEATHCOTE S.R.
see BAILEY JEREMY
HEATON B.D., MATTHEWS N., LITTLE L.T., DENT W.R.F. Ammonia observations of G34.3+0.1: A 'bipolar' H II region? 217 485
HEATON B.
see LITTLE L.T.
HEAVENS A.F.
see PEACOCK J.A.
HEAVENS Alan. Large-scale structure in the Universe..... 213 143
HEBDEN J.C.
see ARGUE A.N.
HEBDEN J.C.
see MEABURN J.
HERNIMAN J.
see COLE G.H.A.
HERNQUIST Lars. Thermal structure of magnetized neutron-star envelopes..... 213 313
HEWETT P.C., IRWIN M.J., BUNCLARK P., BRIDGELAND M.T., KIBBLEWHITE E.J., HE X.T., SMITH M.G. Automated analysis of objective-prism spectra - I. Quasar detection..... 213 971
HEWETT Paul
see GILMORE Gerard
HEWISH A., WOLSZCZAN A., GRAHAM D.A. Quasi-periodic scintillation patterns of the pulsars PSR 1133+16 and PSR 1642-03..... 213 167
HIBBERT A., DUFTON P.L., KEENAN F.P. Oscillator strengths for transitions in NI and the interstellar abundance of nitrogen..... 213 721
HILDITCH R.W., LLOYD EVANS T. The massive near-contact binary system V348 C arinae (HD 90707) in IC 2581..... 213 75
HILL P.W.
see JEFFERY C.S.
HILL K.
see WATTS D.J.
HINKLE KENNETH H.
see WALLERSTEIN GEORGE
HOLM A.
see CASSATELLA A.
HORNE Keith, COOK M.C. UBV images of the Z Cha accretion disc in outburst.... 214 307
HORNE Keith, STEINING Rae F. Eclipse maps of the accretion disc in RW Trianguli 216 933
HORNE Keith. Images of accretion discs - I. The eclipse mapping method..... 213 129
HOUGH J.H.
see BRINDLE C.
HOUGH J.H.
see BAILEY JEREMY
HOUGH J.M.
see AITKEN D.K.
HOUZIAUX L., NANDY K., MORGAN D.H. The interstellar 4430 A band in the Small Magellanic Cloud..... 215 5P
HUBER M.C.E.
see TOZZI G.P.
HUGHES David W. The size, mass, mass loss and age of Halley's comet..... 213 103
HUGHES P.A., ALLEN A.J. The interaction between beams and their cocoons..... 214 399
HUGHES S.

see BAILEY JEREMY
HUNT J., WILLIAMS Iwan P. FOX Ken. Planetary perturbations on the Geminid meteor stream 217 533
HUT PIET
see BINNEY JAMES
HYLAND A.R.
see MITCHELL R.M.
IKEUCHI S.
see CARR B.J.
INAGAKI Shogo
see BETTWIESER Erich
INGLIS I.
see CARTER D.
IRWIN M.J. Automatic analysis of crowded fields..... 214 575
IRWIN M.J.
see HEWETT P.C.
IRWIN M.J.
see WOOD J.H.
ITOH HIROSHI. The destruction of dust grains in collisions of a supernova with a circumstellar medium..... 212 309
IVCHENKO V.N.
see CLAYTON C.A.
JABLONSKI F., BUSKO I.C. EX Hya: the slowest DQ Her star?..... 214 219
JAMESON R.F.
see BAILEY JEREMY
JAMESON R.F.
see BRINDLE C.
JAMESON R.F.
see LONGMORE A.J.
JANIŠ VAČLAV
see BIČÁK JIŘÍ
JAROSZYŃSKI M.
see BLANDFORD R.D.
JEFFERY C.S., MALANEY R.A. Photometry of the extreme helium star BD + 1° 4381..... 213 61P
JEFFERY C.S., SKILLEN Ian, HILL P.W., KILKENNY D., MALANEY R.A., MORRISON K. Photometric and spectroscopic evidence for non-radial pulsation in the extreme helium star BD-9° 4395 ..... 217 701
JENKINS C.R., BLACKMAN C.P. The nuclear colours of weakly active elliptical galaxies..... 212 385
JENNINGS J.E.
see BALDWIN J.E.
JOHNSON C.T.
see KEENAN F.P.
JOHNSON PAUL E.
see SIMON THEODORE
JOHNSTONE R.M.
see LAGO M.T.V.T.
JONES A.P., WILLIAMS D.A. Time-dependent sticking coefficients and mantle growth on interstellar grains 217 413
JONES A.W., MEABURN J. Erratum (missing plate): An upper limit on the proper motion of optical filaments near the Cetus Arc (Loop 2) (Vol. 213, p. 711)... 215 159
JONES A.W., MEABURN J. An upper limit on the proper motion of optical filaments near the Cetus Arc (Loop 2)..... 213 711
JONES D.H.P.
see LA DOUS C.
JONES D.H.P.
see SCHWARZENBERG-CZERNY A.
JONES J. The structure of the Geminid meteor stream - I. The effect of planetary perturbations 217 523
JONES L.R.
see SMITH A.
JONES P.A. Six mass-loss stars at 843 MHz 216 613
JONES P.B. Density functional calculations of the ground-state energies of atoms and infinite linear molecules in very strong magnetic fields 216 503
JORDAN C. Derivation of atmospheric structure from emission-line fluxes..... 214 1P
JORDEN P.R.

see SPARKS W.B.
JORGENSEN H.E.
see SPARKS W.B.
JOSEPH R.D., WRIGHT G.S. Recent star formation in interacting galaxies - II. Super starbursts in merging galaxies..... 214 87
JOSHI U.C., KULKARNI P.V., BHATT H.C., KULSHRESTHA A.K., DESHPANDE M.R. Polarization measurements of stars in the region of Bok globule B5..... 215 275
JOYCE RICHARD R.
see SIMON THEODORE
JUSZKIEWICZ R.
see BARROW John D.
KAHN F.D., WEST KYM A. Shapes of planetary nebulae..... 212 837
KAHN F.D.
see BODE M.F.
KAHN F.D.
see SHULL PETER Jr.
KAHN S.M.
see CÓRDOVA F.A.
KAHN F.D.
see DA COSTA A.A.
KAIFU NORIO
see HAYASHI MASAHIKO
KAPAHI Vijay K. Cosmological evolution of linear sizes of radio galaxies..... 214 19P
KARACHENTSEVA V.E.
see KARACHENTSEV I.D.
KARACHENTSEV I.D., KARACHENTSEVA V.E., BÖRNGEN F. 'Garland' - an unusual object near NGC 3077 ..... 217 731
KARIMIE M.T.
see BREINHORST R.A.
KATZ J.
see LYNDEN-BELL D.
KEENAN F.P., JOHNSON C.T., KINGSTON A.E., DUFTON P.L. Population ratios for the fine structure ground state of Si II applicable to the interstellar medium..... 214 37P
KEENAN F.P.
see HIBBERT A.
KEMBHAVI Ajit
see RAY Alak
KHALIULLINA A.I., KHALIULLIN Kh F., MARTYNOV D. Ya Apsidal motion and the third body in the system RU Monocerotis 216 909
KHALIULLIN Kh. F
see KHALIULLINA A.I.
KHLOPOV M.YU., MALOMED B.A., ZELDOVICH YA.B. Gravitational instability of scalar fields and formation of primordial black holes..... 215 575
KIBBLEWHITE E.J., CAWSON M.G.M., DISNEY M.J., PHILLIPPS S. An optical search for the intergalactic H I cloud in Leo..... 213 111
KIBBLEWHITE E.J.
see HEWETT P.C.
KIKUCHI S.
see BRINDLE C.
KILKENNY David, WHITTET D.C.B. On the intrinsic uvby colours of early-type supergiants 216 127
KILKENNY D.
see EVANS A.
KILKENNY D.
see JEFFERY C.S.
KING A.R. The origin of the magnetic field distribution in accreting white dwarfs 217 23P
KING A.R., WILLIAMS G.A. Absorption dips and the geometry of the AM Herculis systems..... 215 1P
KING A.R., FRANK J., RITTER H. Secular evolution of magnetic cataclysmic variables..... 213 181
KING A.R.
see WATSON M.G.
KING A.R.
see WILLINGALE R.
KING D.J., SCARROTT S.M., SHIRT J.V. Optical polarization in the bipolar

nebula NGC 6302 ..... 213 11P
KINGSTON A.E.
see KEENAN F.P.
KOCHHAR R.K.
see SOM SUNDER G.
KODALI P.D.
see SAIKIA D.J.
KOLASSIS C.A.
see DE OLIVEIRA A.K.G.
KOO David C.
see ELLIS Richard S.
KRAAKMAN H.
see VAN AMERONGEN S.
KRAUSE-POLSTORFF J., MICHEL F.C. Electrosphere of an aligned magnetized neutron star 213 43P
KREIDL Tobias J. The Ap star 53 Cam: another 21 Com? 216 1013
KREIDL Tobias J. Differential photometry of the Sct stars HR 151 and HR 239 ..... 216 1017
KRIEDL Tobias J.
see KRUTZ D.W.
KREIDL TOBIAS J. A search for low-harmonic pulsation in the Ap star CS Vir.. 212 337
KRISHNAMOHAN S. Dependence of pulsewidth on the age of pulsars - a comment on Candy and Blair's analysis 214 15P
KROTO H.W., McNAUGHTON D., LITTLE L.T., MATTHEWS N. Long-chain hydrocarbon molecules in the interstellar medium: search for 1-cyanobut-3-ene-1-yne, CH2=CH-C≡C-C≡N 213 753
KRUG PETER A.
see MORTON DONALD C.
KULKARNI P.V.
see JOSHI U.C.
KULKARNI P.V.
see WILLIAMS I.P.
KULSHRESTHA A.K.
see JOSHI U.C.
KUMAR S.
see BLANDFORD R.D.
KUMAR S., PRINGLE J.E. Twisted accretion discs: the Bardeen-Petterson effect 213 435
KURTZ D.W., KREIDL Tobias J. A frequency analysis of a newly discovered Rapidly Oscillating Ap star, HD 6532 ..... 216 987
KURTZ D.W., SCHNEIDER HARTMUT, WEISS WERNER W. Pulsational mode constraints for the rapidly oscillating Ap star HR 1217 ..... 215 77
KURTZ D.W. An algorithm for significantly reducing the time necessary to compute a Discrete Fourier Transform periodogram of unequally spaced data.... 213 773
LA DOUS C., VERBUNT F. SCHOEMBS R., ARGYLE R.W., JONES D.H.P., SCHWARZENBERG-CZERNY A., HASSALL B.J.M., PRINGLE J.E., WADE R.A. Dwarf novae in outburst: simultaneous ultraviolet and optical observations of RU Pegasi and TZ persei..212 231
LAGO M.T.V.T., PENSTON M.V., JOHNSTONE R.M. Upper limits to coronal line emission from X-ray-detected T Tauri 212 151
LAING J.D.
see MENZIES J.W.
LAPASSET E.
see CLARIA J.J.
LAPIDUS I.I., SUNYAEV R.A. Angular distribution and polarization of X-ray-burster radiation (during stationary and flash phases) 217 291
LARSEN-SOMMER J., CHRISTENSEN P.R. Radial velocities of blue horizontal branch field stars 212 851
LARSON Richard B. Cloud fragmentation and stellar masses 214 379
LAUER Tod R. Boxy isophotes, discs and dust lanes in elliptical galaxies 216 429
LAUNAY J.M.,
see FLOWER D.R.
LATTANZIO J.C., MONAGHAN J.J., PONGRACIC H., SCHWARZ M.P. Interstellar cloud collisions 215 125
LAWRENCE A., WATSON M.G., POUNDS K.A., ELVIS Martin. Continuous rapid X-ray variability and spectral changes in NGC 4051 ..... 217 685
LEAHY D.A. Einstein observations of the Rosette nebula and the Mon OB2 association 217 69

LEAHY D.A., NARANAN S., SINGH K.P. Einstein X-ray observations of the Monoceros supernova remnant 213 15P
LEBOFSKY M.J.
see WALSH D.
LEE M.A.
see WEBB G.M.
LEIBOWITZ E.M.,
see DANZIGER I.J.
LEITCH-DEVLIN M.A., WILLIAMS D.A. Sticking coefficients for atoms and molecules at the surfaces of interstellar dust grains 213 295
LERCHE I.,
see BOGDAN T.J.
LERCHE I.
see WEBB G.M.
LEVSHAKOV S.A., VARSHALOVICH D.A. Molecular hydrogen in the z=2.811 absorbing material toward the quasar PKS 0528-250 ..... 212 517
LEWIS E.L.
see SMITH G.
LILLY, P.J.
see PERRYMAN M.A.C.
LILLY S.J., LONGAIR M.S., MILLER L. Non-stellar radiation in radio galaxies at 3.5 μm 214 109
LILLY S.J., LONGAIR M.S., ALLINGTON-SMITH J.R. Infrared observations of 1-jansky radio source identifications and empty fields 215 37
LILLY S.J., GUNN J.E. Infrared photometry of galaxies in the Butcher-Oemler cluster 0024+1654 ..... 217 551
LILLY S.J.
see ALLINGTON-SMITH J.R.
LIN D.N.C., PAPALOIZOU JOHN, FAULKNER JOHN. On the evolution of accretion disc flow in cataclysmic variables - III. Outburst properties of constant and uniform-α model discs 212 105
LINDBLOM Lee
see BALBINSKI Eugene
LITTLE L.T.
see KROTO H.W.
LITTLE L.T., DENT W.R.F., HEATON B., DAVIES S.R., WHITE G.J. The rotating interstellar disc in G35.2 - 0.74 ..... 217 227
LITTLE L.T.
see DENT W.R.F.
LITTLE L.T.
see HEATON B.D.
LIVIO Mario
see PRIALNIK Dina
LLOYD EVANS T. Bright red variables of large amplitude in the Magellanic Clouds 212 955
LLOYD EVANS T. An R star in the central bulge of the Galaxy 216 29P
LLOYD EVANS T.
see HILDITCH R.W.
LLOYD EVANS T. Circumstellar material and the light variations of RV Tauri stars 217 493
LONGAIR M.S.
see ALLINGTON-SMITH J.R.
LONGAIR M.S.
see LILLY S.J.
LONGAIR M.S.
see LILLY S.J.
LONGAIR M.S.
see MILLER L.
LONGMORE A.J.
see WILLIAMS P.M.
LONGMORE A.J., FERNLEY J.A., JAMESON R.F., SHERRINGTON M.R., FRANK J. VJHK observations of the RR Lyrae star VY Serpentis 216 873
LONGMORE A.J.
see WHITTET D.C.B.
LORAN JON M.
see BROWN JOHN C.
LUMINET J.P.

see CARTER B.
LUMINET JEAN-PIERRE, MARCK JEAN-ALAIN. Tidal squeezing of stars by Schwarzschild black holes..... 212 57
LYNDEN-BELL D., KATZ J. Gravitational field energy density for spheres and black holes..... 213 21P
LYNDEN-BELL D.
see DE ZEEUW P.T.
LYNE A.G.
see BIGGS J.D.
LYNE A.G., MANCHESTER R.N., TAYLOR J.H. The galactic population of pulsars... 213 613
LYNE A.G.
see PERRY T.E.
McCULLOCH P.M.
see BIGGS J.D.
MACDOUGALL R.J.
see SEMBAY S.
McDONNELL J.A.M.
see EVANS A.
McDOWELL Jonathan. Accretion radiation from nearby isolated black holes 217 77
MACERONI C., MILANO L., RUSSO G. General properties of W Ursae Majoris systems 217 843
MCFADZEAN A.D.
see WHITTET D.C.B.
MacGILLIVRAY
see STEVENSON P.R.F.
MacGILLIVRAY
see STEVENSON P.R.F.
McGLYNN T.A.
see ARNAUD K.A.
McGRAW J.T.
see BRINDLE C.
MCHARDY I.
see FABIAN A.C.
McLACHLAN A., NANDY K. Shock-heated gas in the I Per OB association..... 215 473
McLEAN IAN S.
see SIMON THEODORE
McLEAN I.
see BAILEY JEREMY
MACLAREN Iain
see ELLIS Richard S.
McNAUGHTON D.
see KROTO H.W.
MALANEY R.A. On the nature of the neutron exposure event of U Aquarii 216 743
MALANEY R.A.
see JEFFERY C.S.
MALANEY R.A.
see JEFFERY C.S.
MALIN D.F.
see WALSH J.R.
MALOMED B.A.
see KHLOPOV M.YU.
MANCHESTER R.N.
see BIGGS J.D.
MANCHESTER R.N., D'AMICO N., TUOHY I.R. A search for short-period pulsars... 212 975
MANCHESTER R.N.
see BIGGS J.D.
MANCHESTER R.N.
see LYNE A.G.
MANN A.P.C., WILLIAMS D.A. An investigation of diffuse cloud chemistry - II. Inferred interstellar parameters..... 214 279
MANTLE V.J.
see CLARKE C.J.
MANTOVANI F.
see BROWNE I.W.A.
MARASCHI L.
see TREVES A.
MARCK JEAN-ALAIN
see LUMINET JEAN-PIERRE.

MARKERT T.H.
see AGRAWAL P.C.
MARTIN BRIAN
see WICKRAMASINGHE D.T.
MARTIN C.
see BRANDUARDI-RAYMONT G.
MARTYNOV D. Ya
see KHALIULLINA A.I.
MASHHOON Bahram. Influence of a stochastic background of gravitational waves on the timing of pulsars 217 265
MASON K.O., PARMAR A.N., WHITE N.E. Simultaneous X-ray observations of the X-ray dip source X1755 - 338 ..... 216 1033
MASON K.O.
see BRANDUARDI-RAYMONT G.
MASON K.O.
see CORBET R.H.D.
MASON K.O.
see CÓRDOVA F.A.
MATSUDA Takuya
see SHIMA Eiji
MATTEI JANET A.
see WALLERSTEIN GEORGE
MATTEUCCI F., TOSI M. Nitrogen and oxygen evolution in dwarf irregular galaxies 217 391
MATTHEWS N.
see HEATON B.D.
MATTHEWS N.
see KROTO H.W.
MAY A., VAN ALBADA T.S., NORMAN C.A. A self-consistent box-shaped galaxy..... 214 131
MEABURN J., WALSH J.R., MO B.L., HEBDEN J.C., VINE H., STANDLEY C. Speckle observations of the central source in the bipolar nebula NGC 2346..... 213 35P
MEABURN J.
see CLAYTON C.A.
MEABURN J.
see JONES A.W.
MEABURN J.
see FAIRALL A.P.
MEABURN J., WALSH J.R. Echelle observations of high-velocity lobes projecting from the core of the bipolar nebula MZ-3..... 215 761
MEADOWS A.J.
see RUSSELL K.S.
MEADOWS A.J.
see GREEN S.F.
MEGGITT S.M.A.
see WICKRAMASINGHE D.T.
MELNICK Jorge
see TERLEVICH Roberto
MELNICK Jorge, TERLEVICH Roberto, EGGLETON P.P. Studies of violent star formation in extragalactic systems - I. Population synthesis model for the ionizing clusters of giant H II regions and H II galaxies 216 255
MELOTT A.L.
see BUSHOUSE H.
MENDOZA C.
see BUTLER K.
MENZIES J.W., LAING J.D. Ten years of UBV(RI)c photometry of E-region stars at Sutherland 217 563
MENZIES J.W., WHITELOCK P.A. A period-luminosity relation for Mira variables in globular clusters and its impact on the distance scale..... 212 783
MENZIES J.W.
see BYRNE P.B.
MERRITT David, AGUILAR Luis A. A numerical study of the stability of spherical galaxies 217 787
MERRITT David. Distribution functions for spherical galaxies..... 214 25P
MESTEL L., RAY T.P. Disc-like magneto-gravitational equilibria..... 212 275
MESTEL L., ROBERTSON J.A., WANG Y.-M., WESTFOLD K.C. The axisymmetric pulsar magnetosphere 217 443
MICHEL F.C.

see KRAUSE-POLSTORFF J.
MIKKOLA SEPPO. A practical and regular formulation of the N-body equations..... 215 171
MILANO L.
see MACERONI C.
MILLAR T.J., NEJAD L.A.M. Chemical modelling of molecular sources - IV. Time-dependent chemistry of dark clouds 217 507
MILLAR T.J., ADAMS N.G., SMITH D., CLARY D.C. The HCS^+/CS abundance ratio in interstellar clouds 216 1025
MILLER L.
see LILLY S.J.
MILLER L. The morphologies and magnetic field structures of six 3CR double radio galaxies..... 215 773
MILLER L., LONGAIR M.S., FABBIANO G., TRINCHIERI G., ELVIS M. The gaseous environments of double radio galaxies..... 215 799
MISHRA RICHARD. Predictions of distance within the Local Group..... 212 163
MITCHELL R.M., ROBINSON G., HYLAND A.R., NEUGEBAUER G. The late infrared development of Nova Serpentis 1970 ..... 216 1057
MITROFANOV I.G.
see SHKLOVSKII I.S.
MOHAN Vijay, SAGAR Ram. A photometric study of the open cluster M39..... 213 337
MOLES M., OLMO A. del, PEREA J. Taxonomical analysis of superclusters - I. The Hercules and Perseus superclusters..... 213 365
MONAGHAN J.J.
see PHILLIPS G.J.
MONAGHAN J.J.
see LATTANZIO J.C.
MONTEIRO T.S.
see SMITH G.
MONTEIRO T.S. Rotational excitation of HCO^+ by collisions with H_2..... 214 419
MONTEIRO T. Erratum: Collisional excitation of HCN-hyperfine transitions (MN 211, p.257)..... 213 495
MOON T.T., DWORETSKY M.M. Grids for the determination of effective temperature and surface gravity of B, A and F stars using uvby βx photometry..... 217 305
MOORWOOD A.F.M.
see GLASS I.S.
MORAN J.M.
see RODRIGUEZ L.F.
MORENO M.A.
see RODRIGUEZ L.F.
MORGAN B.L.
see MEABURN J.
MORGAN B.L.
see ARGUE A.N.
MORGAN D.H.
see HOUZIAUX L.
MORGAN D.H., GOOD A.R. New planetary nebulae in the Small Magellanic Cloud... 213 491
MORGAN D.H., GOOD A.R. New Wolf-Rayet stars in the Large Magellanic Cloud ... 216 459
MORLEY T.
see EVANS A.
MORRIS Simon, WARD Martin, WHITTLE Mark, WILSON A.S., TAYLOR K. The velocity fields and radio structures of the active galaxies NGC 5643 and NGC 7582 ... 216 193
MORRIS SIMON L., WARD MARTIN J. CCD spectroscopy of the active galaxies NGC 5506 and NGC 7314..... 215 57P
MORRISON K.
see JEFFERY C.S.
MORTON DONALD C., KRUG PETER A., TRITTON K.P. A deep optical survey of a small region in Aquarius - II. Stellar spectroscopy..... 212 325
MORTON DONALD C.
see WEST KYM A.
MOSS DAVID. Erratum: Time-dependent models of rotating magnetic stars - II. The displaced dipole (Vol. 213, p. 575)..... 215 159
MOSS David. Time-dependent models of rotating magnetic stars - II. The displaced dipole..... 213 575
MOUNTAIN C.M., SELBY M.J., ZADROZNY A., HARTQUIST T.W. Molecular hydrogen emmission from the maser source W75N(OH) 216 13P

MUKAI KOJI, CHARLES PHILIP. The emission line profiles of 2A 0311-227..... 212 609
MURDIN P.G.
see BRANDUARDI-RAYMONT G.
MUSHOTZKY R.F.
see FABIAN A.C.
MUXLOW T.W.B.
see BROWNE I.W.A.
NADESU D.
see BRINDLE C.
NAGENDRA K.N., PERAIAH A. Numerical solution of the radiative transfer equation in a magnetized medium..... 214 203
NANDY K.
see HOUZIAUX L.
NANDY K.
see McLACHLAN A.
NARANAN S.
see LEAHY D.A.
NARAYAN Ramesh
see BLANDFORD Roger
NARAYAN Ramesh
see GOLDREICH Peter
NARAYAN Ramesh
see GOODMAN Jeremy
NARLIKAR J.V., RANA N.C. Newtonian N-body calculations of the advance of Mercury's perihelion..... 213 657
NEJAD L.A.M.
see MILLAR T.J.
NELSON A.H. Cosmic rays and the Parker instability..... 215 161
NELSON A.H.
see FOSTER P.A.
NETZER Hagai Quasar discs - I. The Baldwin effect..... 216 63
NEUGEBAUER G.
see MITCHELL R.M.
NEY E.P.
see WILLIAMS R.E.
NOBILI L., CALVANI M., TUROLLA R. On hydrodynamics of astrophysical jets - I. Basic equations..... 214 161
NOLT I.G.
see GEAR W.K.
NOLT I.G.
see ROBSON E.I.
NOORDANUS BARBARA, COTTRELL P.L., AKE III THOMAS B. HR 5637: the unveiling of a binary..... 212 931
NORMAN C.A.
see MAY A.
NORMAN Michael L.
see SMITH Michael D.
NORRIS R.P., BAAN W.A., HASCHICK A.D., DIAMOND P.J., BOOTH R.S. MERLIN observations of OH masers around the active galactic nucleus IC 4553..... 213 821
NORRIS R.P.,
see DIAMOND P.J.
NORRIS R.P. The nature of the megamaser galaxy IC 4553 (Arp 220) 216 701
NORRIS R.P.
see ALLEN D.A.
NORRIS R.P.
see DIAMOND P.J.
NORWELL G.A.
see EVANS A.
NULSEN P.E.J.
see FABIAN A.C.
NYMAN L-A.
see DIAMOND P.J.
O'DONOGHUE
see WARNER BRIAN
OHISHI M.
see DENT W.R.F.
OKE J.B.

see WALLERSTEIN GEORGE
OLMO A. del.
see MOLES M.
ORTOLANI Sergio
see SABBADIN Franco
ORTOLANI Sergio
see SABBADIN Franco
OSBORNE J.
see WATSON M.G.
PADMAN R., SCOTT P.F., VIZARD D.R., WEBSTER A.S. CS5-4 observations of OMC1: evidence for external heating of the quiescent gas..... 214 251
PADRIELLI L.
see BROWNE I.W.A.
PAGEL B.E.J.
see DÍAZ ANGELES I.
PAGE C.G.
see BARR P.
PAGEL B.E.J.
see DÍAZ Angeles I.
PALLISTER IAN C. $r_{\frac{1}{4}}$ models of cluster X-ray sources..... 215 335
PALMER P.L., PAPALOIZOU J. On the interaction between a spherical stellar system and a companion..... 215 691
PAN R.
see CLUBE S.V.M.
PANEK Miroslaw. Detection of voids by randomly placed spheres. 216 85
PAOLICCHI P.
see FARINELLA P.
PAPALOIZOU J.C.B., PRINGLE J.E. The dynamical stability of differentially rotating discs - II..... 213 799
PAPALOIZOU J.C.B., SAVONIJE G.J. On the tidal evolution of massive X-ray binaries: the tidal evolution time-scales for very long orbital periods..... 213 85
PAPALOIZOU J.C.B., PRINGLE J.E. On the narrowness of transition fronts in accretion discs 217 387
PAPALOIZOU JOHN
see LIN D.N.C.
PAPALOIZOU J.
see PALMER P.L.
PARMAR A.N.
see CORBET R.H.D.
PARMAR A.N.
see MASON K.O.
PEACOCK J.A.
see WALL J.V.
PEACOCK J.A., HEAVENS A.F. The statistics of maxima in primordial density perturbations 217 805
PEACOCK J.A. The high-redshift evolution of radio galaxies and quasars 217 601
PEDLAR A., DYSON J.E., UNGER S.W. Radio Seyferts and the forbidden-line region..... 214 463
PEDLAR A.
see APPLETON P.N.
PENCE W.D.
see COUCH WARRICK J.
PENSTON M.V., ALLEN D.A. On the ultraviolet spectrum of AG Peg..... 212 939
PENSTON M.V.
see LAGO M.T.V.T.
PENSTON M.V.
see BROMAGE G.E.
PENSTON M.V.
see WEST KYM A.
PERAIAH A.
see NAGENDRA K.N.
PEREA J.
see MOLES M.
PEROLA G.C.
see BROMAGE G.E.

PERRYMAN M.A.C., DOWNES A.J.B., LILLY S.J. The distances and associated

properties of faint radio sources 216 641
PERRY,
see MOLES M.
PERRY J.J., DYSON J.E. Shock formation of the broad emission-line regions in QSOs and active galactic nuclei..... 213 665
PERRY J.J.
see SIEVERS A.W.
PERRY T.E., LYNE A.G. Unpulsed radio emission from pulsars..... 212 489
PERSI P.
see SEMBAY S.
PERSI P.
see TAPIA M.
PETERSON RUTH C.
see CARNEY BRUCE W.
PETROU Maria
see James BINNEY
PETTINI M.
see BROMAGE G.E.
PETTINI MAX
see WEST KYM A.
PHILLIPPS Steven, DISNEY Michael. Star formation and the surface brightness of spiral galaxies 217 435
PHILLIPPS STEVEN. A method for determining the spatial correlation function from a sample with partial distance information..... 212 657
PHILLIPPS Steven
see DISNEY Michael
PHILLIPPS S.
see KIBBLEWHITE E.J.
PHILLIPS G.J., MONAGHAN J.J. A numerical method for three-dimensional simulations of collapsing, isothermal, magnetic gas clouds 216 883
PHILLIPS M.M.
see BALDWIN J.A.
PINEAU DES FORETS G.
see FLOWER D.R.
PITTS E., TAYLER R.J. The adiabatic stability of stars containing magnetic fields - VI. The influence of rotation 216 139
PORCAS R.W.
see WHYBORN N.D.
PONGRACIC H.
see LATTANZIO J.C.
POUNDS K.A.
see WILLINGALE R.
POUNDS K.A.
see LAWRENCE A.
PRAMESH RAO A.
see VELUSAMY T.
PRAVDO S.H., WHITE N.E., GIOMMI P. The identification of H2311+77 with HD 220140, a probable RS CVn star..... 215 11P
PRIALNIK Dina, LIVIO Mario. Episodic accretion events on to a white dwarf.... 213 407
PRIALNIK Dina, LIVIO Mario The outcome of accretion on to a fully convective star: expansion or contraction? 216 37
PRINGLE J.E.
see PAPALOIZOU J.C.B.
PRINGLE J.E.
see HASSALL B.J.M.
PRINGLE J.E.
see KUMAR S.
PRINGLE J.E.
see LA DOUS C.
PRINGLE J.E.
see PAPALOIZOU J.C.B.
PRINGLE J.E.
see SCHWARZENBERG-CZERNY A.
PRINGLE J.E.
see WOOD J.H.
PYNZAR A.V.
see VENUGOPAL V.R.

RAMADURAI S., REES M.J. Deuterium abundance and Population III remnants.... 215 53P
RAINE D.J.
see SMITH M.D.
RAKSIT A.B.
see BOHME D.K.
RANA N.C.
see NARLIKAR J.V.
RATNATUNGA Kavan U.
see BAHCALL John N.
RAY Alak, KEMBHAVI Ajit. Thermal regeneration of neutron-star magnetic fields in binary radio and X-ray pulsars? 217 753
RAY T.P.
see MESTEL L.
REAY N.K.
see ATHERTON P.D.
REAY N.K., ATHERTON P.D. Kinematic structure of planetary nebulae - IV. Nature of the condensations in NGC 7009..... 215 233
REED B.C., FITZGERALD M.P. Erratum: The distribution of luminous stars at (l,b) = (245° ,0°) in Puppis..... 212 987
REES Martin J. Mechanisms for biased galaxy formation..... 213 75P
REES M.J.
see RAMADURAI S.
REES W.G., DUFFETT-SMITH P.J. The phase power spectrum of the solar wind measured by long-baseline interferometry at 81.5 MHz..... 212 463
REID Neill
see GILMORE Gerard
REID Neill
see GLASS I.S.
REIMERS D.
see CASSATELLA A.
REPHAELI YOEL, WANDEL AMRI. Gas clouds in clusters of galaxies..... 215 453
REYNOLDS J.E.
see HARNETT J.I.
RICHARDSON I.M.
see FIELD D.
RICHARDSON K.J., WHITE GLENN J. GEE G., GRIFFIN M.J., CUNNINGHAM C.T., ADE P.A.R., AVERY L.W. Submillimetre line and continuum observations of the S255 molecular cloud 216 713
RIEGLER G.R.
see AGRAWAL P.C.
RIEKE G.H.
see WALSH D.
RITTER H.
see KING A.R.
ROBERTS G.
see FEAST M.W.
ROBERTSON J.A.
see MESTEL L.
ROBERTSON J.G.
see SHAVER P.A.
ROBERTSON J.G.
see SMITH R.M.
ROBINSON G.
see MITCHELL R.M.
ROBSON E.I., GEAR W.K., SMITH M.G., ADE P.A.R., NOLT I.G. Millimetre observations of optically selected quasars..... 213 355
ROBSON E.I.
see GEAR W.K.ROCHE P.F.
see AITKEN D.K.
ROCHE P.F.
see ALLEN D.A.
ROCHE Patrick F., AITKEN David K. 8-13 μm spectrophotometry of galaxies - V. The nuclei of five spiral galaxies..... 213 789
ROCHE P.F.
see AITKEN D.K.
ROCHE PATRICK F., AITKEN DAVID K. An investigation of the interstellar extinction - II. Towards the mid-infrared sources in the Galactic Centre..... 215 425

RODRÍGUEZ L.F., GARCÍA-BARRETO J.A., CANTO J., MORENO M.A., TORRES-PEIMBERT S., COSTERO R., SERRANO A., MORAN J.M., GARAY G. Radio observations of the young planetary nebula NGC 6302..... 215 353
RODRÍGUEZ L.F., ROTH M., TAPIA M. Herbig-Haro objects 1 and 2: another infrared candidate for their energy source..... 214 9P
ROMNEY J.D.
see BROWNE I.W.A.
ROTH M.
see RODRÍGUEZ L.F.
ROTH M.
see TAPIA M.
ROWLAND P.R.
see DIAMOND P.J.
RUCINSKI S.M. IUE observations of HD 36705..... 215 591
RUCINSKI S.M. The Mg II emission in W UMa-type binaries.....215 615
RUDD P.J.
see SPARKS W.B. RUSSELL K.S., DAWE J.A., BIRKETT C.M., ADAMS D.J., MEADOWS A.J. Observations of Comet Crommelin - I. Morphology and C_2 production rate 217 651
RUSSO G.
see MACERONI C.
SABBADIN Franco, BIANCHINI Antonio, ORTOLANI Sergio, STRAFELLA Francesco. The structure of NGC 3587, the Owl nebula 217 539
SABBADIN Franco, ORTOLANI Sergio, BIANCHINI Antonio. Expansion velocities for selected planetary nebulae..... 213 563
SADLER Elaine M., GERHARD Ortwin E. How common are 'dust-lanes' in early-type galaxies?..... 214 177
SAGAR Ram
see MOHAN Vijay
SAIKIA D.J., SWARUP G., KODALI P.D. Polarization properties of radio cores in galaxies and quasars 216 385
SANDERS R.H.
see TEUBEN P.J.
SANTOS N.O. Non-adiabatic radiating collapse 216 403
SANTOS N.O.
see DE OLIVEIRA A.K.G.
SARAPH H.E.
see BAYES F.A.
SATO S.
see DENT W.R.F.
SAVAGE A., CLOWES R.G., CANNON R.D., CHEUNG K., SMITH M.G., BOKSENBERG A., WALL J.V. Spectroscopy of quasar candidates from searches of UK Schmidt Telescope objective prism plates..... 213 485
SAVAGE Blair D.
see de BOER Klaas S.
SAVONIJE G.J.
see PAPALOIZOU J.C.B.
SAWADA Keisuke
see SHIMA Eoh
SAZHIN M.V. Hot and cold spots in the microwave background radiation 213 25P
SCARROTT S.M.
see DRAPER P.W.
SCARROTT S.M.
see KING D.J.
SCARROTT S.M.
see WARD-THOMPSON D.
SCARROTT S.M.
see WARREN-SMITH R.F.
SCHNEIDER HARTMUT
see KURTZ D.W.
SCHOEMBS R.
see LA DOUS C.
SCHULZ H.
see BRINDLE C.
SCHUTZ Bernard F.
see BALBINSKI Eugene
SCHWARZ M.P.
see LATTANZIO J.C.

SCHWARZ M.P. A re-examination of some bar-driven models of spiral structure. 212 677
SCHWARZ U.J.
see GOSS W.M.
SCHWARZENBERG-CZERNY A., WARD MARTIN, HANES D.A., JONES D.H.P., PRINGLE J.E., VERBUNT F., WADE R.A. Dwarf novae in outburst: simultaneous ultraviolet and optical observations of VW Hydri..... 212 645
SCHWARZENBERG-CZERNY A.
see LA DOUS C.
SCOTT P.F.
see PADMAN R.
SEATON M.J.
see BAYES F.A.
SEELY J.F.
see DOSCHEK G.A.
SEELY J.F., FELDMAN U. Population mechanisms for the He^+ n=3 levels determined from measurements of the solar 1640 Å emission..... 213 417
SEELY J.F.
see FELDMAN U.
SELBY M.J.
see MOUNTAIN C.M.
SELBY M.J.
see SHALLIS M.J.
SELLWOOD J.A. The global stability of our Galaxy 217 127
SEMBAY S., COE M.J., CLEMENT R., DEAN A.J., HANSON C.G., FERRARI-TONIOLO M., PERSI P., SPINOGLIO L., BASSANI L., DI COCCO G., MACDOUGALL J.R., ELSMORE B. IRAS observations of MKN 501 with quasi-simultaneous observations at radio, near-infrared and ultraviolet wavelengths..... 216 121
SERRANO A.
see RODRÍGUEZ L.F.
SEWARD F.D.
see SMITH A.
SHAFER R.A.
see ARNAUD K.A.
SHALLIS M.J., BARUCH J.E.F., BOOTH A.J., SELBY M.J. Effective temperatures, angular diameters and radii of Ap stars 213 307
SHANKS T.
see BOYLE B.J.
SHANKS T.
see COUCH WARRICK J.
SHANKS T.
see STEVENSON P.R.F.
SHARPLES RAY M., ELLIS RICHARD S., COUCH WARRICK J., GRAY PETER M. Multi-object spectroscopy of the distant cluster AC103..... 212 687
SHAVER P.A., ROBERTSON J.G. The close QSO pair Q1548+114A,B..... 212 15P
SHERRINGTON M.R.
see LONGMORE A.J.
SHERRINGTON M.R.
see BAILEY JEREMY
SHIMA Eiji, MATSUDA Takuya, TAKEDA Hidenori, SAWADA Keisuke. Hydrodynamic calculations of axisymmetric accretion flow 217 367
SKILLEN Ian
see JEFFERY C.S.
SHIRT J.V.
see KING D.J.
SHKLOVSKII I.S., MITROFANOV I.G. On the astronomical nature of the sources of gamma-ray bursts..... 212 545
SHOBBROOK R.R. uvby β photometry of southern clusters - VI. NGC 3766..... 212 591
SHOBBROOK R.R. New radial pulsation constants for the β Cephei variables..... 214 33
SHONE D.
see WALSH D.
SHULL PETER Jr., DYSON J.E., KAHN F.D., WEST KYM A. A model for SNR evolution in cloudy medium and its application to N49..... 212 799
SIEVERS A.W., PERRY J.J., ELLIS G.F.R. Cosmological observations of galaxies: number counts..... 212 197
SIKORA MAREK, ZBYSZEWSKA MAGDA. Soft gamma-ray production in active galactic nuclei..... 212 553
SIMON THEODORE, DYCK H.M., WOLSTENCROFT RAMON D., JOYCE RICHARD R., JOHNSON

PAUL E., McLEAN IAN S. The morphology of NGC 6334 IRS V-1..... 212 21P
SINGAL ASHOK K., GOPAL-KRISHNA. Ultra-relativistic bulk motion and radio flux variability of Active Galactic Nuclei..... 215 383
SINGH K.P.
see LEAHY D.A.
SMARR Larry
see SMITH Michael D.
SMITH A., JONES L.R., WATSON M.G., WILLINGALE R., WOOD N., SEWARD F.O. X-ray observations of the supernova remnant W44 ..... 217 99
SMITH G., MONTEIRO T.S., DICKINSON A.S., LEWIS E.L. Collisional broadening of the sodium D lines by atomic hydrogen 217 679
SMITH A.
see FABIAN A.C.
SMITH D.
see MILLAR T.J.
SMITH F.G., WRIGHT N.C. Frequency drift in pulsar scintillation..... 214 97
SMITH K.L.
see WALCZOWSKI L.T.
SMITH LINDSEY F.
see WADE BRIAN R.
SMITH M.D., RAINE D.J. Wind interactions above accretion discs: a model for broad-line regions and collimated outflow..... 212 425
SMITH M.G.
see HEWETT P.C.
SMITH M.G.
see ROBSON E.I.
SMITH M.G.
see SAVAGE A.
SMITH Michael D., NORMAN Michael L., WINKLER Karl-Heinz A., SMARR Larry. Hotspots in radio galaxies: a comparison with hydrodynamic simulations..... 214 67
SMITH R.
see BRINDLE C.
SMITH R.M., EFSTATHIOU G., ELLIS R.S., FRENK C.S., VALENTIJN E.A. Relative velocities of multiple-nucleus galaxies 216 71P
SMITH R.M., ROBERTSON J.G. A radio and optical study of the radio galaxy PKS 0511-48..... 212 809
SMITH R.M.
see BOSMA A.
SMITH Robert Connon
see COLLINS George W, II.
SMITH R.
see BRINDLE C.
SMITH VERNE V.
see WALLERSTEIN GEORGE
SNIJDERS M.A.J.
see BROMAGE G.E.
SOLTAN Andrzej Statistics of voids of galaxies 216 537
SOMMER-LARSEN J., CHRISTENSEN P.R. Radial velocities of blue horizontal branch field stars..... 212 851
SOM SUNDER G., KOCHHAR R.K. On the dynamical evolution of a spheroidal cluster..... 213 381
SONODA D.H.
see BARROW John D.
SORENSEN SOREN-AKSEL. On the formation of spiral structure in gas discs through tidal interaction - I. Direct encounters..... 212 723
SORRELL Wilfred H. Maximum cosmic redshift of quasars at $Z > 3$..... 213 389
SPARKS W.M.
see WILLIAMS R.E.
SPARKS W.B., WALL J.V., THORNE D.J., JORDEN P.R., van BREDA I.G., RUDD P.J., JORGENSEN H.E. Dust in elliptical galaxies 217 87
SPARKS W.B.
see APPLETON P.N.
SPENCER R.E. Erratum: Flux density and structure variations in SS 433..... 212 751
SPICKER J.
see FEITZINGER J.V.
SPINOGLIO L.
see SEMBAY S.

SPINRAD H.
see WHYBORN N.D.
STANDLEY C.
see ARGUE A.N.
STANDLEY C.
see MEABURN J.
STARRFIELD S.G.
see WILLIAMS R.E.
STEEL DUNCAN I., BAGGALEY W.J. Collisions in the Solar System - I. Impacts of the Apollo-Amor-Aten asteriods upon the terrestrial planets..... 212 817
STEEL DUNCAN I. Collisions in the Solar System - II. Asteroid impacts upon Mars..... 215 369
STEIN-SCHABES JAIME. Limits on the monopole mass obtained from the monopolonium lifetime..... 215 659
STEIN-SCHABES Jaime A. Magnetic monopoles in anisotropic magnetic cosmologies 216 809
STEINING Rae F.
see HORNE Keith
STEPNEY SUSAN
see GUILBERT P.W.
STEVENSON P.R.F., SHANKS T., FONG R., MacGILLIVRAY H.T. Correlation analyses of deep galaxy samples - III..... 213 953
STEWART G.C.
see FABIAN A.C.
STEWART R.T.
see FORSTER J.R.
STIAVELLI M., BERTIN G. A family of self-consistent models of elliptical galaxies 217 735
STICKLAND D.J.
see CASSATELLA A.
STIFT Martin J. Theoretical Stokes profiles for magnetic stars - I. Rotation, line asymmetries and crossover 217 55
STRAFELLA Francesco
see SABBADIN Franco
see SHIMA Eiji
SUGIMOTO DAIICHIRO
see BETTWIESER ERICH
SUKETU P. Bhavsar
see BARROW John D.
SUKUMAR S., VELUSAMY T. Radio continuum observation of NGC 4631 at 327 MHz..... 212 367
SUKUMAR S.
see VELUSAMY T.
SUMMERS Danny
see WHITWORTH Ant
SUNTZEFF NICHOLAS B.
see DOMINY JAMES F.
SUNYAEV R.A.
see LAPIDUS I.I.
SWARUP G.
see SAIKIA D.J.
SWARUP G.
see VIJAYANARASIMHA USHA
SWARUP G.
see VENUGOPAL V.R.
SZKODY P.
see BERRIMAN G.TRURAN J.W.
see WILLIAMS R.E.
TAKEDA Hidenori
see SHIMA Eiji
TALEVERA A.
see WILLIAMS P.M.
TAN Sze M., GULL Stephen F. The expansion of Tycho's supernova remnant as determined by a new algorithm for comparing data 216 949
TANDON S.N.
see GHOSH S.K.
TANZI E.G.

see BROMAGE G.E.
TANZI E.G.
see TREVES A.
TAPIA M., ROTH M., PERSI P., FERRARI-TONIOLO M. Near-infrared sources in the molecular cloud G35.2-0.74 ..... 213 833
TAPIA M.
see RODRÍGUEZ L.F.
TAYLER R.J.
see PITTS E.
TAYLOR G.E.
see EVANS A.
TAYLOR J.H.
see LYNE A.G.
TAYLOR K.
see ATHERTON P.D.
TAYLOR K.
see MORRIS Simon
TELESCO C.M.
see WILLIAMS P.M.
TENNANT A.F.
see ARNAUD K.A.
TERLEVICH Elena
see DIAZ Angeles I.
TERLEVICH Roberto, MELNICK Jorge. Warmers: the missing link between Starburst and Seyfert galaxies 213 841
TERLEVICH Roberto
see MELNICK Jorge
TEUBEN P.J., SANDERS R.H. Dynamical rules for barred spiral galaxies 212 257
TEUBEN P.J., SANDERS R.H. Erratum: Dynamical rules for barred spiral galaxies 214 319
THEODOSSIOU E. Empirical effective temperatures of late O, B, A, and early F stars 214 327
THORNBURG Jonathan. An upper limit for the solar acceleration 213 27P
THORNE D.J.
see SPARKS W.B.
TILANUS R.P.J.
see GOSS W.M.
TIPLER Frank J.
see BARROW John D.
TJEMKES S.
see VAN AMERONGEN S.
TORRES-PEIMBERT S.
see RODRÍGUEZ L.F.
TOSI M., DIAZ Angeles I. The chemical evolution of spiral galaxies NGC 2403, NGC 6946 and IC 342 ..... 217 571
TOSI M.
see MATTEUCCI F.
TOZZI G.P., BRUNNER A.J., HUBER M.C.E. Transition probabilities in Cr I 217 423
TREVES A., DREW J., FALOMO R., MARASCHI L, TANZI E.G., WILSON R. UV and optical observations of PG 1351+64, a bright Seyfert galaxy or a low-luminosity QSO 216 529
TRINCHIERI G.
see MILLER L.
TRITTON K.P.
see MORTON DONALD C.
TRURAN J.W.
see WILLIAMS R.E.
TUOHY I.R.
see MANCHESTER R.N.
TUROLLA R.
see NOBILI L.
UDALTSOV V.A.
see VENUGOPAL V.R.
ULRICH M.H.
see BROMAGE G.E.
UNGER S.W.
see PEDLAR A.

VALENTIJN E.A.
see SMITH R.M.
VAN ALBADA T.S.
see MAY A.
VAN AMERONGEN S., KRAAKMAN H., DAMEN E., TJEMKES S., VAN PARADIJS J
Spin-up of the white dwarf in the intermediate polar AO Psc/H2252-035..... 215 45P
VAN DE BULT C.E.P.M., GREENBERG J Mayo, WHITTET D.C.B. Ice in the Taurus molecular cloud: modelling of the 3-μm profile..... 214 289
VAN DER HUCHT K.A.
see WILLIAMS P.M.
VAN GORKOM J.H.
see GOSS W.M.
VAN PARADIJS J.
see VAN AMERONGEN S.
VARSHALOVICH D.A.
see LEVSHAKOV S.A.
VEDI K.
see WILLIAMS I.P.
VELUSAMY T. Structure of the Crab Nebula: intensity and polarization at 20 cm..... 212 359
VELUSAMY T., RAO A. PRAMESH, SUKUMAR S. OSRT observations of the Sco X-1 region at 327 MHz..... 213 735
VELUSAMY T.
see SUKUMAR S.
VENUGOPAL V.R., ANANTHAKRISHNAN S., SWARUP G., PYNZAR A.V., UDALTSOV V.A.
Structure of PKS 1148-001..... 215 685
VERBUNT Frank
see DREW Janet
VERBUNT F.
see HASSALL B.J.M.
VERBUNT F.
see LA DOUS C.
VERBUNT F.
see SCHWARZENBERG-CZERNY A.
VIJAYANARASIMHA USHA, ANANTHAKRISHNAN S., SWARUP G. Interplanetary scintillation observations of 57 flat-spectrum sources at 327 MHz..... 212 601
VINE H.A.
see ARGUE A.N.
VINE H.
see MEABURN J.
VIZARD D.R.
see PADMAN R.
WADE BRIAN R., SMITH LINDSEY F. uvby Hβ photometry of UV-bright stars..... 212 77
WADE R.A.
see LA DOUS C.
WADE R.A.
see SCHWARZENBERG-CZERNY A.
WAGGETT P.C.
see BALDWIN J.E.
WALCZOWSKI L.T., SMITH K.L. A recurrence of the Cassiopeia A flux anomaly... 212 27P
WALKER ALISTAIR R. CCD observations of the RR Lyrae stars in NGC 2210 and the distance to the Large Magellanic Cloud..... 212 343
WALKER Alistair R. CCD photometry of galactic clusters containing Cepheid variables - II. NGC 6067..... 214 45
WALKER Alistair R. The distance to the LMC from ZAMS fitting to the young cluster NGC 1866 ..... 217 13P
WALKER D.D., DIEGO F. Design philosophy of the forthcoming echelle spectrographs for the AAT and LPO 217 355
WALKER D.D.
see DIEGO F.
WALL J.V., PEACOCK J.A. Bright extragalactic radio sources at 2.7 GHz - III. The all-sky catalogue 216 173
WALL J.V.
see SAVAGE A.
WALL J.V.
see SPARKS W.B.
WALLERSTEIN GEORGE

see DOMINY JAMES F.
WALLERSTEIN GEORGE, HINKLE KENNETH H., DOMINY JAMES F., MATTEI JANET A., SMITH VERNE V., OKE J.B. The spectrum of R Cygni during its exceptionally low maximum of 1983..... 215 67
WALLIS M.K., CAREY W.C. Observations of Comet Crommelin - V. Anomalous hydrogen source 217 673
WALLIS M.K., WICKRAMASINGHE N.C. Halley's comet: its size and decay rate 216 453
WALLIS R.E.
see BRINDLE C.
WALLIS R.E.
see WILLIAMS I.P.
WALSH D., LEBOFSKY M.J., RIEKE G.H., SHONE D., ELSTON R. Infrared study and classification of optically faint steep-spectrum radio sources..... 212 631
WALSH J.R., MALIN D.F. Faint structures in the NGC 2261 - HH39 region 217 31
WALSH J.R.
see CLAYTON C.A.
WALSH J.R.
see CLEGG R.E.S.
WALSH J.R.
see MEABURN J.
WANG Y.-M.,
see MESTEL L.
WAMSTEKER W.M.
see WILLIAMS P.M.
WANDEL AMRI
see REPHAELI YOEL
WARD Lennart. Moderately accurate oscillator strengths from NBS intensities - a revision..... 213 71
WARD M.J.
see ARNAUD K.A.
WARD MARTIN
see SCHWARZENBERG-CZERNY A.
WARD Martin
see MORRIS Simon
WARD MARTIN J.
see MORRIS SIMON L.
WARD-THOMPSON D., WARREN-SMITH R.F., SCARROTT S.M., WOLSTENCROFT R.D. Evidence for discs and jets associated with R and T Cr A..... . 215 537
WARNER BRIAN, O'DONOGHUE DARRAGH, ALLEN SUE. Rapid oscillations in CPD-48° 1577..... 212 9P
WARNER Brian. CP Puppis and V1500 Cygni 217 1P
WARNER P.J.
see BALDWIN J.E.
WARREN-SMITH R.F.
see DRAPER P.W.
WARREN-SMITH R.F., GLEDHILL T.M., SCARROTT S.M. Polarimetric evidence against a collimated outflow in the Horsehead Nebula..... 215 75P
WARREN-SMITH R.F.
see WARD-THOMPSON D.
WATSON M.G., KING A.R., OSBORNE J. The old nova GK Per: discovery of the X-ray pulse period..... 212 917
WATSON M.G.
see FABIAN A.C.
WATSON M.G.
see LAWRENCE A.
WATSON M.G.
see SMITH A.
WATT G.D.,
see FLOWER D.R.
WATT GRAEME D. Time-dependent chemistry - II. Dependence of the chemistry on the initial [C]/[O] abundance ratio..... 212 93
WATT Graeme D., CHARNLEY Steven B. Time-dependent chemistry - III. The effects of sulphur and oxygen depletion on the interstellar abundances of sulphur-bearing molecules..... 213 157
WATTS D.J.
see BAILEY JEREMY
WATTS D.J., GILES A.B., GREENHILL J.G., HILL K., BAILEY J. Polarimetry,

photometry and spectroscopy of the intermediate polar V1223 Sgr..... 215 83
WAYMAN P.A.
see DEASY H.P.
WEBB G.M., BOGDAN T.J., LEE M.A., LERCHE I. Momentum-dependent diffusive particle acceleration in modified shock fronts..... 215 341
WEBSTER A.S.
see PADMAN R.
WEBSTER Adrian. The polarization of fluorescence in the vibration-rotation bands of molecular hydrogen 217 761
WEBSTER Rachel L. Gravitational lensing and galaxy shape..... 213 871
WEINBERG Martin D. Evolution of barred galaxies by dynamical friction..... 213 451
WEISS WERNER W.
see KURTZ D.W.
WELLINGTON K.J.
see BOSMA A.
WESTFOLD K.C.
see MESTEL L.
WEST KYM A.
see KAHN F.D.
WEST KYM A.
see SHULL PETER Jr.
WEST KYM A., PETTINI MAX, PENSTON M.V., BLADES J.CHRIS, MORTON DONALD C. The interstellar spectrum of the bright Seyfert galaxy NGC 3783: evidence for an extragalactic origin of high-velocity clouds..... 215 481
WHITE G.J.
see LITTLE L.T.
WHITE Glenn J.
see RICHARDSON K.J.
WHITE N.E.
see BARR P.
WHITE N.E.
see MASON K.O.
WHITE N.E.
see PRAVDO S.H.
WHITELOCK P.A.
see FEAST M.W.
WHITELOCK P.A., CATCHPOLE R.M. The infrared spectra of red variables - I. Super-lithium-rich stars..... 212 873
WHITELOCK P.A.
see MENZIES J.W.
WHITELOCK Patricia. JHKL observations of IRAS sources - II..... 213 51P
WHITELOCK Patricia A. JHKL Photometry of planetary nebulae..... 213 59
WHITEOAK J.B.
see GARDNER F.F.
WHITTET D.C.B., LONGMORE A.J., MCFADZEAN A.D. Solid CO in the Taurus dark clouds..... 216 45P
WHITTET D.C.B.
see EVANS A.
WHITTET D.C.B.
see KILKENNY David
WHITTET D.C.B.
see VAN DE BULT C.E.P.M.
WHITTLE Mark. The narrow line region of active galaxies - I. Nuclear [O III] profiles..... 213 1
WHITTLE Mark. The narrow line region of active galaxies - II. Relations between [O III] profile shape and other properties..... 213 33
WHITTLE Mark The narrow line region of active galaxies - III. Profile comparisons 216 817
WHITTLE Mark
see MORRIS Simon
WHITWORTH Ant, SUMMERS Danny. Self-similar condensation of spherically symmetric self-gravitating isothermal gas clouds..... 214 1
WHYBORN N.D., BROWNE I.W.A., WILKINSON P.N., PORCAS R.W., SPINRAD H. Radio and optical observations of the radio galaxy 0831 + 557..... 214 55
WHYTE Charles A., EGGLETON Peter P. A simple model for binary star evolution..... 214 357
WICKRAMASINGHE D.T., MARTIN BRIAN. The magnetic field of AM Herculis..... 212 353

WICKRAMASINGHE D.T., MEGGITT S.M.A. An analysis of the AM Her-type variables CW 1103+254 and E1405-451 ..... 216 857
WICKRAMASINGHE D.T., MEGGITT S.M.A. The polarization properties of magnetic accretion columns - III. A grid of uniform temperature and shock front models..... 214 605
WICKRAMASINGHE N.C.
see WALLIS M.K.
WILKINSON P.N.
see WHYBORN N.D.
WILKSINSON A.
see APPLETON P.N.
WILLIAMS D.A.,
see MANN A.P.C.
WILLIAMS D.A.
see JONES A.P.
WILLIAMS D.A.
see LEITCH-DEVLIN M.A.
WILLIAMS G.A.
see KING A.R.
WILLIAMS G.P.
see WILLIAMS I.P.
WILLIAMS I.P., VEDI K., GRIFFITHS W.K., BHATT H.C., KULKARNI P.V., ASHOK N.M., WALLIS R.E. Polarization measurements of the Bok globule B361..... 212 181
WILLIAMS I.P.
see DONNISON J.R.
WILLIAMS I.P., WILLIAMS G.P., VEDI K., EATON N., ZARNECKI J.C., GRIFFITHS W.K., Observations of Comet Crommelin - III. Broad-band photometry in the visible and near-infrared..... 217 628
WILLIAMS I.P.
see DONNISON J.R.
WILLIAMS Iwan P.
see FOX Ken
WILLIAMS Iwan P.
see HUNT J.
WILLIAMS P.M., LONGMORE A.J., VAN DER HUCHT K.A., TALEVERA A., WAMSTEKER W.M., ABBOTT D.C., TELESCO C.M. Condensation of dust around the WC7 star HD 192641 (WR 137)..... 215 23P
WILLIAMS R.E., NEY E.P., SPARKS W.M., STARRFIELD S.G., WYCKOFF S., TRURAN J.W., Ultraviolet spectral evolution and heavy element abundances in Nova Coronae Austrinae 1981..... 212 753
WILLINGALE R.
see SMITH A.WILLINGALE R., KING A.R., POUNDS K.A. EXOSAT MEDA observations of Cygnus X-3..... 215 295
WILSON D.M.A.
see BALDWIN J.E.
WILSON A.S.
see MORRIS Simon
WILSON I.R.G.
see DÍAZ ANGELES I.
WILSON M.J., FALLE S.A.E.G. Steady jets 216 971
WILSON M.J.
see FALLE S.A.E.G.
WILSON R.
see TREVES A.
WILLSTROP R.V. The flat-field Mersenne-Schmidt 216 411
WINKLER Karl-Heinz A.
see SMITH Michael D.
WISNIEWSKI W.J.
see BRINDLE C.
WOLSTENCROFT RAMON D.
see SIMON THEODORE
WOLSTENCROFT R.D.
see WARD-THOMPSON D.
WOLSZCZAN A.
see HEWISH A.
WOLTJER L.
see HAWKINS M.R.S.

WOOD J.H., IRWIN M.J., PRINGLE J.E. A digital technique for the separation of the eclipses of a white dwarf and an accretion disc..... 214 475
WOOD N.
see SMITH A.
WOOD W.P.
see GALEA E.R.
WRIGHT Alan E.
see BROWNE I.W.A.
WRIGHT G.S.
see JOSEPH R.D.
WRIGHT N.C.
see SMITH F.G.
WYCKOFF S.
see WILLIAMS R.E.
YABUSHITA S., ALLEN A.J. Simulations of galaxy cluster relaxation..... 213 117
YABUSHITA S.
see ALLEN A.J.
YAMASHITA T.
see DENT W.R.F.
ZADROZNY A.
see MOUNTAIN C.M.
ZAPPALA' V.
see FARINELLA P.
ZARNECKI J.C.
see EATON N.
ZARNECKI J.C.
see EVANS A.
ZARNECKI J.C.
see WILLIAMS I.P.
ZBYSZEWSKA MAGDA.
see SIKORA MAREK
ZEEUW Tim de. Elliptical galaxies with separable potentials 216 273
ZEEUW Tim de. A generalization of Kuzmin's theorem 216 599
ZEIPPEN C.J.
see BUTLER K.
ZELDOVICH YA.B.
see KHLOPOV M.YU.
ZUIDERWIJK E.J. The gravitational lens effect and the surface density of quasars near foreground galaxies..... 215 639
see BUTLER K.

SUBJECT INDEX

ABUNDANCES OF THE ELEMENTS

Time-dependent chemistry - II. Dependence of the chemistry on the inital [C]/[O] abundance ratio, WATT Graeme D..... 212 93
Time-dependent chemistry-III. The effects of sulphur and oxygen depletion on the interstellar abundances of sulphur-bearing molecules, WATT Graeme D., CHARNLEY Steven B..... 213 157
Oscillator strengths for transitions in N I and the interstellar abundance of nitrogen, HIBBERT A., DUFTON P.L., KEENAN F.P..... 213 721
Deuterium abundance and Population III remnants, RAMADURAI S., REES M.J..... 215 53P
Optical spectrophotometric study of supernova remnants in the Large Magellanic Cloud, DANZIGER I.J., LEIBOWITZ E.M. 216 365
Depletion of elements in shock-driven gas, GONDHALEKAR P.M. 216 57P
Element abundances from solar flare spectra, DOSCHEK G.A., FELDMAN U., SEELY J.F. 217 317
Nitrogen and oxygen evolution in dwarf irregular galaxies, MATTEUCCI F., TOSI M. 217 391
The chemical evolution of spiral galaxies: M51, NGC 2403, NGC 6946 and IC 342, TOSI M., DIAZ Angeles I. 217 571
Depletion of sulphur in the interstellar medium, GONDHALEKAR P.M. 217 585

ACCRETION AND ACCRETION DISCS

On the evolution of accretion disc flow in cataclysmic variables - III. Outburst properties of constant and uniform-α model discs, LIN D.N.C., PAPALOIZOU John, FAULKNER John..... 212 105
Dwarf novae in outburst: simultaneous ultraviolet and optical observations of RU Pegasi and TZ Persei, LA DOUS C., VERBUNT F., SCHOEMBS R., ARGYLE R.W., JONES D.H.P., SCHWARZENBERG-CZERNY A., HASSALL B.J.M., PRINGLE J.E., WADE R.A. 212 231
Wind interactions above accretion discs: a model for broad-line regions and collimated outflow, SMITH M.D, RAINE D.J..... 212 425
Soft gamma-ray production in active galactic nuclei, SIKORA MAREK, ZBYSZEWSKA Magda 212 553
An upper limit to the growth rate of instabilities in constant specific angular momentum tori, BLAES O.M..... 212 37P
Images of accretion discs - I. The eclipse mapping method, HORNE Keith..... 213 129
Episodic accretion events on to a white dwarf, PRIALNIK Dina , LIVIO Mario.... 213 407
Twisted accretion discs: the Bardeen-Petterson effect, KUMAR S., PRINGLE J.E.. 213 435
The dynamical stability of differentially rotating discs - II, PAPALOIZOU J.C.B., PRINGLE J.E..... 213 799
On hydrodynamics of astrophysical jets - I. Basics equations, NOBILI L., CALVANI M., TUROLLA R..... 214 161
UBV images of the Z Cha accretion disc in outburst, HORNE Keith, COOK M.C..... 214 307
A digital technique for the separation of the eclipses of a white dwarf and an accretion disc, WOOD J.H., IRWIN M.J., PRINGLE J.E. 214 475
The polarization properties of magnetic accretion columns - III. A grid of uniform temperature and shock front models, WICKRAMASINGHE D.T., MEGGITT S.M.A. 214 605
The eccentric binary model of superhumps, CLARKE C.J., MANTLE V.J., BATH G.T..... 215 149
High-speed photometry of the eclipsing dwarf nova OY Carinae, COOK M.C..... 215 211
Accretion noise in Active Galactic Nuclei, CRUISE A.M., DODDS P.M..... 215 417
The maintenance of corotation in the strong polars, CAMPBELL C.G..... 215 509
On the stability and evolution of relativistic radiation tori: equations and speculations, BLANDFORD R.D., JAROSZYNSKI M., KUMAR S..... 215 667
Absorption dips and the geometry of the AM Herculis systems, KING A.R., WILLIAMS G.A..... 215 1P
B335 - a candidate protostar?, GEE Graham, GRIFFIN Matthew J., CUNNINGHAM Charles T., EMERSON J.P., ADE Peter A.R., CAROFF Lawrence J..... 215 15P
Spin-up of the white dwarf in the intermediate polar AO Psc/H2252-035, VAN AMERONGEN S., KRAAKMAN H., DAMEN E., TJEMKES S., VAN PARADIJS J..... 215 45P
The outcome of accretion on to a fully convective star: expansion or contraction?, PRIALNIK Dina, LIVIO Mario 216 37
Quasar discs - I. the Baldwin effect, NETZER Hagai 216 63
High-speed photometry of Z Chamaeleontis covering the 1983 March normal outburst, COOK M.C. 216 219
A superoutburst of the dwarf nova EK Trianguli Australis, HASSALL B.J.M. 216 335
Dwarf novae in outburst: monitoring WX Hydri with IUE, HASSALL B.J.M., PRINGLE J.E., VERBUNT F. 216 353

An analysis of the AM Her-type variables CW 1103+254 and E 1405-451, WICKRAMASINGHE D.T., MEGGITT S.M.A. 216 857
Eclipse maps of the accretion disc in RW Trianguli, HORNE Keith, STEINING Rae F. 216 933
The discovery of low-level iron K line emission from Cyg X-1, BARR P., WHITE N.E., PAGE C.G. 216 65P
Accretion radiation from nearby isolated black holes, McDOWELL Jonathan 217 77
Thermal and non-thermal emission from NGC 1275 (3C 84), GEAR W.K., GEE G., ROBSON E.I., NOLT I.G. 217 281
Angular distribution and polarization of X-ray-burster radiation (during stationary and flash phases), LAPIDUS I.I., SUNYAEV R.A. 217 291
The origin of the infrared light of cataclysmic variable stars, BERRIMAN G., SZKODY P., CAPPS R.W. 217 327
Hydrodynamic calculations of axisymmetric accretion flow, SHIMA Eiji, MATSUDA Takuya, TAKEDA Hidenori, SAWADA Keisuke 217 367
On the narrowness of transition fronts in accretion discs, PAPALOIZOU J.C.B., PRINGLE J.E. 217 387
Acoustic amplification in discs and tori, DRURY L.O'C. 217 821

ASTEROIDS
Collisions in the Solar System - I. Impacts of the Apollo-Amor-Aten asteroids upon the terrestrial planets, STEEL Duncan I., BAGGALEY W.J. 212 817
Infrared observations of the extinct cometary candidate minor planet (3200) 1983TB, GREEN S.F., MEADOWS A.J., DAVIES J.K. 214 29P
Collisions in the Solar System - II. Asteroid impacts upon Mars, STEEL Duncan I. 215 369
Original abundance of asteroids from their present rotational properties, FARINELLA P., PAOLICCHI P., ZAPPALA' V. 216 565
Speckle interferometry of Hipparcos link stars - II, ARGUE A.N., HEBDEN J.C., MORGAN B.L., STANDLEY C., VINE H.A. 216 447

BL LAC OBJECTS
Coordinated multisite observations of the variability of BL Lac, BRINDLE C., HOUGH J.H., BAILEY J.A., AXON D.J., SCHULZ H., KIKUCHI S., McGRAW J.T., WISNIEWSKI W.J., FONTAINE G., NADESU D., CLAYTON G., ANDERSON E., JAMESON R.F., SMITH R., WALLIS R.E. 214 619
IRAS observations of MKN 501 with quasi-simultaneous observations at radio, near- infrared and ultraviolet wavelengths, SEMBAY S., COE M.J., CLEMENT R., DEAN A.J., HANSON C.G., FERRARI-TONIOLO M., PERSI P., SPINOGLIO L., BASSANI L., DI COCCO G., MACDOUGALL J.R., ELSMORE B. 216 121
Frequency-dependent polarization in blazars, BJORNSSON Claes-Ingvar 216 241
The ultraviolet variability of the BL Lacertae object OJ287, HANSON C.G., COE M.J. 217 831

BLACK HOLES
Tidal squeezing of stars by Schwarzschild black holes, LUMINET Jean-Pierre, MARCK Jean-Alain 212 57
Magnetic fluxes across black holes, BICAK JIRI, JANIS VACLAV 212 899
Twisted accretion discs: the Bardeen-Petterson effect, KUMAR S., PRINGLE J.E.. 213 435
Gravitational field energy density for spheres and black holes, LYNDEN-BELL D., KATZ J. 213 21P
Gravitational instability of scalar fields and formation of primordial black holes, KHLOPOV M. Yu., MALOMED B.A., ZELDOVICH Ya.B. 215 575
Collapse of a radiating star, DE OLIVEIRA A.K.G., SANTOS N.O., KOLASSIS C.A. 216 1001
Accretion radiation from nearby isolated black holes, McDOWELL Jonathan 217 77

CELESTIAL MECHANICS
On the tidal evolution of massive X-ray binaries: the tidal evolution time-scales for very long orbital periods, PAPALOIZOU J.C.B., SAVONIJE G.J... 213 85
Simulations of galaxy cluster relaxation, YABUSHITA S., ALLEN A.J. 213 117
The dynamical behaviour of SS 433, COLLINS George W. II 213 279
On the dynamical evolution of a spheroidal cluster, SOM SUNDER G., KOCHHAR R.K 213 381
Twisted accretion discs: the Bardeen-Petterson effect, KUMAR S., PRINGLE J.E.. 213 435
Evolution of barred galaxies by dynamical friction, WEINBERG Martin D. 213 451
A gas model for multicomponent star clusters: method and comparison with

Fokker-Planck theory, BETTWIESER Erich, INAGAKI Shogo 213 473
Newtonian N-body calculations of the advance of Mercury's perihelion,
NARLIKAR J.V., RANA N.C..... 213 657
The dynamical stability of differentially rotating discs - II,
PAPALOIZOU J.C.B., PRINGLE J.E..... 213 799
Non-axisymmetric instability in thin discs, GOLDREICH Peter, NARAYAN Ramesh... 213 7P
Mechanics of the affine star model, CARTER B., LUMINET J.P..... 212 23
Gravitational N-body problem and the validity of concepts of the gas model,
BETTWIESER Erich, SUGIMOTO DaichiroO..... 212 189
Dynamical rules for barred spiral galaxies, TEUBEN P.J., SANDERS R.H..... 212 257
A re-examination of some bar-driven models of spiral structure, SCHWARZ M.P... 212 677
On the formation of spiral structure in gas discs through tidal interaction -
I. Direct encounters, SORENSEN Soren-Aksel..... 212 723
Testing for triaxiality with kinematic data, BINNEY James..... 212 767
Collisions in the Solar System - I. Impacts of the Apollo-Amor-Aten asteroids
upon the terrestrial planets, STEEL Duncan I., BAGGALEY W.J..... 212 817
An upper limit to the growth rate of instabilities in constant specific
angular momentum tori, BLAES O.M..... 212 37P
Self-similar condensation of spherically symmetric self-gravitating isothermal
gas clouds, WHITWORTH Ant, SUMMERS Danny..... 214 1
A self-consistent box-shaped galaxy, MAY A., VAN ALBADA T.S., NORMAN C.A..... 214 131
Structure of surfaces of section, BINNEY James, GERHARD Ortwin E., HUT Piet... 215 59
A practical and regular formulation of the N-body equations, MIKKOLA Seppo.... 215 171
Evolution of multicomponent stellar systems, BETTWIESER Erich..... 215 499
The hierarchical stability of satellite systems, DONNISON J.R., WILLIAMS I.P.. 215 567
On the interaction between a spherical stellar system and a companion,
PALMER P.L., PAPALOIZOU J..... 215 691
Best approximate quadratic integrals in stellar dynamics, de ZEEUW P.T.,
LYNDEN-BELL D..... 215 713
Motion in the core of a triaxial potential, de ZEEUW Tim..... 215 731
On dissipational processes during galaxy cluster relaxation, ALLEN A.J.,
YABUSHITA S. 216 155
Elliptical galaxies with separable potentials, ZEEUW Tim de 216 273
Triaxial galaxies containing massive black holes or central density cusps,
GERHARD Ortwin E., BINNEY James 216 467
Orbital stability during the early stages of planetary formation,
DONNISON J.R., WILLIAMS I.P. 216 521
Oscillations of slender tori, BLAES O.M. 216 553
A generalization of Kuzmin's theorem, ZEEUW DE Tim 216 599
A new shear instability in rotating, self-gravitating, perfect fluids,
BALBINSKI Eugene 216 897
Apsidal motion and the third body in the system RU Monocerotis,
KHALIULLINA A.I., KHALIULLIN Kh. F., MARTYNOV D. YA. 216 909
The global stability of our Galaxy, SELLWOOD J.A. 217 127
A possible origin for some ancient December fireballs, FOX Ken,
WILLIAMS Iwan P. 217 407
The structure of the Geminid meteor stream - I. The effect of planetary
perturbations, JONES J. 217 523
Planetary perturbations on the Geminid meteor stream, HUNT J.,
WILLIAMS Iwan P., FOX Ken 217 533
A family of self-consistent models of elliptical galaxies, STIAVELLI M.,
BERTIN G. 217 735
A numerical study of the stability of spherical galaxies, MERRITT David,
AGUILAR Luis A. 217 787
Acoustic amplification in discs and tori, DRURY L.O'C. 217 821

COMETS

The size, mass, mass loss and age of Halley's comet, HUGHES David W..... 213 103
Infrared observations of the extinct cometary candidate minor planet (3200)
1983TB, GREEN S.F., MEADOWS A.J., DAVIES J.K..... 214 29P
Halley's comet: its size and decay rate, WALLIS M.K., WICKRAMISINGHE N.C. 216 453
Observations of Comet Crommelin - I. Morphology and C_2 production rate,
RUSSELL K.S., DAWE J.A., BIRKETT C.M., ADAMS D.J., MEADOWS A.J. 217 651
Observations of Comet Crommelin - II. The dust component, EATON N.,
ZARNECKI J.C. 217 659
Observations of Comet Crommelin - III. Broad-band photometry in the visible
and near-infrared, WILLIAMS I.P., WILLIAMS G.P., VEDI K., EATON N.,

ZARNECKI J.C., GRIFFITHS W.K. 217 665
Observations of Comet Crommelin - IV. Upper limit on the optical depth in the coma at ultraviolet wavelenths, EVANS A., ZARNECKI J.C., McDONNELL J.A.M., BODE M.F., TAYLOR G.E., MORLEY T. 217 669
Observations of Comet Crommelin - V. Anomalous hydrogen source, WALLIS M.K., CAREY W.C. 217 673

COSMIC RAYS
Diffusive shock acceleration in modified shocks, BOGDAN T.J., LERCHE I..... 212 413
An investigation of diffuse cloud chemistry - II. Inferred intersellar parameters, MANN A.P.C., WILLIAMS D.A..... 214 279
Cosmic rays and the Parker instability, NELSON A.H..... 215 161
Radio continuum observations of four edge-on spiral galaxies, HARNETT J.I., REYNOLDS J.E..... 215 247
Momentum-dependent diffusive particle acceleration in modified shock fronts, WEBB G.M., BOGDAN T.J., LEE M.A., LERCHE I..... 215 341

COSMOLOGY
Large-scale structure in the Universe, HEAVENS Alan..... 213 143
Maximum cosmic redshift of quasars at Z > 3, SORRELL Wilfred H..... 213 389
A hierarchical explosion scheme for the origin of cosmological structure, CARR B.J., IKEUCHI S..... 213 497
Gravitational lensing and galaxy shape, WEBSTER Rachel L..... 213 871
Universal rotation: how large can it be? BARROW John D., JUSZKIEWICZ R., SONODA D.H..... 213 917
Constraints on decaying particles from Virgo infall, EFSTATHIOU G..... 213 29P
Mechanisms for biased galaxy formation. REES Martin J..... 213 75P
Cosmological observations of galaxies: number counts, SIEVERS A.W., PERRY J.J., ELLIS G.F.R..... 212 197
Molecular hydrogen in the z=2.811 absorbing material toward the quasar PKS 0528-250, LEVSHAKOV S.A., VARSHALOVICH D.A..... 212 517
Multi-object spectroscopy of the distant cluster AC103, SHARPLES Ray M., ELLIS Richard S., COUCH Warrick J., GRAY Peter M..... 212 687
Reheating of the intergalactic medium at Z>10, COUCHMAN H.M.P..... 214 137
Cosmological evolution of linear sizes of radio galaxies, KAPAHI Vijay K..... 214 19P
The dynamical state of groups of galaxies, BARNES Joshua..... 215 517
Gravitational instability of scalar fields and formation of primordial black holes, KHLOPOV M. Yu., MALOMED B.A., ZELDOVICH Ya.B..... 215 575
The gravitational lens effect and the surface density of quasars near foreground galaxies, ZUIDERWIJK E.J..... 215 639
Limits on the monopole mass obtained from the monopolonium lifetime, STEIN-SCHABES Jaime..... 215 659
Deuterium abundance and Population III remnants, RAMADURAI S., REES M.J..... 215 53P
Minimal spanning trees, filaments and galaxy clustering, BARROW John D., BHAVSAR Suketu P., SONODA D.H. 216 17
Detection of voids by randomly placed spheres, PANEK Miroslaw 216 85
Bright extragalactic radio sources at 2.7 GHz - III. The all-sky catalogue, WALL J.V., PEACOCK J.A. 216 173
Closed universes: their future evolution and final state, BARROW John D., TIPLER Frank J. 216 395
Statistics of voids of galaxies, SOLTAN Andrzej 216 537
Comparison of the quasar populations in two fields, HAWKINS M.R.S. 216 589
Magnetic monopoles in anisotropic magnetic cosmologies, STEIN-SCHABES Jaime A. 216 809
Hot and cold spots in the microwave background radiation, SAZHIN M.V. 216 25P
A sample of 6C sources selected at the peak of the source counts - III. An investigation of the variation of the sizes of radio sources with cosmic epoch, EALES S.A. 217 179
Spectral energy distributions for galaxies in high-redshift clusters - II. 0016 + 16 at z = 0.54, ELLIS Richard S., COUCH Warrick J., MacLAREN Iain KOO David C. 217 239
Influence of a stochastic background of gravitational waves on the timing of pulsars, MASHHOON Bahram. 217 265
An open recollapsing cosmological model with Λ=0, BONNOR W.B..... 217 597
The high-redshift evolution of radio galaxies and quasars, PEACOCK J.A. 217 601
The statistics of maxima in primordial density perturbations, PEACOCK J.A., HEAVENS A.F. 217 805

On the reliability of Virgo infall in estimating the mass density of the Universe, BUSHOUSE H., MELOTT A.L., CENTRELLA J., GALLAGHER III J.S. 217 7P

DATA REDUCTION
A method for determining the spatial correlation function from a sample with partial distance information, PHILLIPPS Steven..... 212 657
Images of accretion discs - I. The eclipse mapping method, HORNE Keith..... 213 129
An algorithm for significantly reducing the time necessary to compute a Discrete Fourier Transform periodogram of unequally spaced data, KURTZ D.W... 213 773
On the statistics of quasar alignments, EDMUNDS M.G., GEORGE G.H..... 213 905
A digital technique for the separation of a white dwarf and an accretion disc, WOOD J.H., IRWIN M.J., PRINGLE J.E..... 214 475
Automatic analysis of crowded fields, IRWIN M.J..... 214 575
Minimal spanning trees, filaments and galaxy clustering, BARROW John D., BHAVSAR Suketu P., SONODA D.H. 216 17
Detection of voids by randomly placed spheres, PANEK Miroslaw 216 85
The expansion of Tycho's supernova remnant as determined by a new algorithm for comparing data, TAN Sze M., GULL Stephen F. 216 949

DISTANCE SCALE
CCD observations of the RR Lyrae stars in NGC 2210 and the distance to the Large Magellanic Cloud, WALKER Alistair R..... 212 343
A period-luminosity relation for Mira variables in globular clusters and its impact on the distance scale, MENZIES J.W., WHITELOCK P.A..... 212 783

GALACTIC CENTRE
Large-velocity-gradient modelling of Sagittarius B2, BROWN R.D., CRAGG D.M.... 215 395
An investigation of the interstellar extinction - II. Towards the mid-infrared sources in the Galactic Centre, ROCHE Patrick F., AITKEN David K..... 215 425
The Sgr A East H II complex at l=-0°.02,b=-0°.07, GOSS W.M., SCHWARZ U.J., VAN GORKOM J.H., EKERS R.D..... 215 69P
The kinematic centre of the Galaxy, CULBE S.V.M., PAN R. 216 511

GALACTIC STRUCTURE AND STELLAR DYNAMICS
Gravitational N-body problem and the validity of concepts of the gas model, BETTWIESER Erich, SUGIMOTO Daiichiro..... 212 189
The galactic population and birthrate of X-ray pulsars, BLAIR D.G., CANDY B.N. 212 219
Dynamical rules for barred spiral galaxies, TEUBEN P.J., SANDERS R.H..... 212 257
Rotation and velocity dispersion in the stellar component of NGC 1316 (Fornax A), BOSMA A., SMITH R.M., WELLINGTON K.J..... 212 301
A deep optical survey of a small region in Aquarius - II. Stellar spectroscopy, MORTON Donald C., KRUG Peter A., TRITTON K.P..... 212 325
Radio continuum observation of NGC 4631 at 327 MHz, SUKUMAR S., VELUSAMY T.... 212 367
Kinematics and dynamics of the haloes of supergiant galaxies, CARTER D., INGLIS I., ELLIS R.S., EFSTATHIOU G., GODWIN J.G..... 212 471
On the astronomical nature of the sources of gamma-ray bursts, SHKLOVSKII I.S., MITROFANOV I.G..... 212 545
A re-examination of some bar-driven models of spiral structure, SCHWARZ M.P... 212 677
On the formation of spiral structure in gas discs through tidal interaction - I. Direct encounters, SORENSEN Soren-Aksel..... 212 723
Testing for triaxiality with kinematic data, BINNEY James..... 212 767
Radial velocities of blue horizontal branch field stars, SOMMER-LARSEN J., CHRISTENSEN P.R..... 212 851
New light on faint stars - VII. Luminosity and mass distributions in two high galactic latitude fields, GILMORE Gerard, REID Neill, HEWETT Paul..... 213 257
Evolution of barred galaxies by dynamical friction, WEINBERG Martin D..... 213 451
The galactic population of pulsars, LYNE A.G., MANCHESTER R.N., TAYLOR J.H.... 213 613
Comparisons of the Standard Galaxy Model with observations in two fields, BAHCALL John N., RATNATUNGA Kavan U..... 213 39P
A self-consistent box-shaped galaxy, MAY A., VAN ALBADA T.S., NORMAN C.A..... 214 131
Erratum: Dynamical rules for barred spiral galaxies, TEUBEN P.J., SANDERS R.H..... 214 319
Structure of box-shaped bulges and other spheroidal components, BINNEY James, PETROU Maria..... 214 449
The vertical structure of galactic spiral arms: the velocity asymmetries in HI observations, FEITZINGER J.V., SPICKER J..... 214 539
Distribution functions for spherical galaxies, MERRITT David..... 214 25P

The dynamical state of groups of galaxies, BARNES Joshua..... 215 517
Vertical motions in the galaxies NGC 3938 and NGC 628, FOSTER P.A., NELSON A.H..... 215 555
On the interaction between a spherical stellar system and a companion, PALMER P.L., PAPALOIZOU J..... 215 691
Best approximate quadratic integrals in stellar dynamics, de ZEEUW P.T., LYNDEN-BELL D..... 215 713
Motion in the core of a triaxial potential, de ZEEUW Tim..... 215 731
The velocity fields and radio structures of the active galaxies NGC 5643 and NGC 7582, MORRIS Simon, WARD Martin, WHITTLE Mark, WILSON A.S., TAYLOR K. ... 216 193
Elliptical galaxies with separable potentials, ZEEUW Tim de 216 273
Boxy isophotes, discs and dust lanes in elliptical galaxies, LAUER Tod R. 216 429
Triaxial galaxies containing massive black holes or central density cusps, GERHARD Ortwin E., BINNEY James 216 467
The kinematic centre of the Galaxy, CULBE S.V.M., PAN R. 216 511
A generalization of Kuzmin's theorem, Tim de ZEEUW 216 599
The impact of nuclear activity on the disc of NGC 1068, ATHERTON P.D., REAY N.K., TAYLOR K. 216 17P
Accretion radiation from nearby isolated black holes, McDOWELL Jonathan 217 77
The global stability of our Galaxy, SELLWOOD J.A. 217 127
Star formation and the surface brightness of spiral galaxies, PHILLIPPS Steven, DISNEY Michael 217 435
A family of self-consistent models of elliptical galaxies, STIAVELLI M., BERTIN G. 217 735
A numerical study of the stability of spherical galaxies, MERRITT David, AGUILAR Luis A. 217 787

GALAXIES

Predictions of distance within the Local Group, MISHRA Richard..... 212 163
Cosmological observations of galaxies: number counts, SIEVERS A.W., PERRY J.J., ELLIS G.F.R..... 212 197
Dynamical rules for barred spiral galaxies, TEUBEN P.J., SANDERS R.H..... 212 257
Radio continuum observation of NGC 4631 at 327 MHz, SUKUMAR S., VELUSAMY T.... 212 367
Kinematics and dynamics of the haloes of supergiant galaxies, CARTER D., INGLIS I., ELLIS R.S., EFSTATHIOU G., GODWIN J. G..... 212 471
Soft gamma-ray production in active galactic nuclei, SIKORA Marek, ZBYSZEWSKA Magda..... 212 553
A re-examination of some bar-driven models of spiral structure, SCHWARZ M.P... 212 677
Multi-object spectroscopy of the distant cluster AC103, SHARPLES Ray M., ELLIS Richard S., COUCH Warrick J., GRAY Peter M..... 212 687
On the formation of spiral structure in gas discs through tidal interaction - I. Direct encounters, SORENSEN Soren-Askel..... 212 723
Testing for trixiality with kinematic data, BINNEY James..... 212 767
An optical search for the intergalactic HI cloud in Leo, KIBBLEWHITE E.J., CAWSON M.G.M., DISNEY M.J., PHILLIPPS S..... 213 111
CCD photometry of a cluster of galaxies at a redshift of 0.57, COUCH Warrick J., SHANKS T., PENCE W.D..... 213 215
Taxonomical analysis of superclusters - I. The Hercules and Perseus superclusters, MOLES M., OLMO A. del, PEREA J..... 213 365
First ranked galaxies in groups and clusters, BHAVSAR Suketu P., BARROW John D 213 857
Gravitational lensing and galaxy shape, WEBSTER Rachel L..... 213 871
JHKL observations of IRAS sources - II, WHITELOCK Patricia..... 213 51P
A self-consistent box-shaped galaxy, MAY A., VAN ALBADA T.S., NORMAN C.A..... 214 131
How common are 'dust-lanes' in early-type galaxies?, SADLER Elaine M., GERHARD ORTWIN E..... 214 177
Bivariate luminosity function of E and S0 galaxies, CHOLONIEWSKI J..... 214 197
Luminosity function of E and S0 galaxies, CHOLONIEWSKI J..... 214 189
Erratum: Dynamical rules for barred spiral galaxies, TEUBEN P.J., SANDERS R.H..... 214 319
JHKL properties of emission-line galaxies, GLASS I.S., MOORWOOD A.F.M..... 214 429
Structure of box-shaped bulges and other spheroidal components, BINNEY James, PETROU Maria..... 214 449
Distribution functions for spherical galaxies, MERRITT David..... 214 25P
Radio continuum observations of four edge-on spiral galaxies, HARNETT J.I., REYNOLDS J.E..... 215 247
Vertical motions in the galaxies NGC 3938 and NGC 628, FOSTER P.A., NELSON A.H..... 215 555

The gravitational lens effect and the surface density of quasars near foreground galaxies, ZUIDERWIJK E.J. ... 215 639
Line-strength gradients in NGC 5813, EFSTATHIOU G., GORGAS J. ... 215 37P
The surface brightness of spiral galaxies - III. Correlations with other optical properties, DISNEY Michael, PHILLIPPS Steven ... 216 53
Studies of violent star formation in extragalactic systems - I. Population synthesis model for the ionizing clusters of giant H II regions and H II galaxies, MELNICK Jorge, TERLEVICH Roberto, EGGLETON P.P. ... 216 255
Elliptical galaxies with separable potentials, ZEEUW Tim de ... 216 273
Boxy isophotes, discs and dust lanes in elliptical galaxies, LAUER Tod R. ... 216 429
Triaxial galaxies containing massive black holes or central density cusps, GERHARD Ortwin E., BINNEY James ... 216 467
Statistics of voids of galaxies, SOLTAN Andrzej ... 216 537
The nature of the megamaser galaxy IC 4553 (Arp 220), NORRIS R.P. ... 216 701
Do some QSO low-ionization absorption systems arise in galactic discs? BALDWIN J.A., PHILLIPS M.M., CARSWELL R.F. ... 216 41P
Relative velocities of multiple-nucleus galaxies, SMITH R.M., EFSTATHIOU G., ELLIS R.S., FRENK C.S., VALENTIJN E.A. ... 216 71P
Dust in elliptical galaxies, SPARKS W.B., WALL J.V., THORNE D.J., JORDEN P.R., van BREDA I.G., RUDD P.J., JORGENSEN H.E. ... 217 87
Spectral energy distributions for galaxies in high-redshift clusters - II. 0016 + 16 at z = 0.54, ELLIS Richard S., COUCH Warrick J., MacLAREN Iain KOO David C. ... 217 239
Nitrogen and oxygen evolution in dwarf irregular galaxies, MATTEUCCI F., TOSI M. ... 217 391
Star formation and the surface brightness of spiral galaxies, PHILLIPPS Steven, DISNEY Michael ... 217 435
Infrared photometry of galaxies in the Butcher-Oemler cluster 0024+1654, LILLY S.J., GUNN J.E. ... 217 551
The chemical evolution of spiral galaxies: M51, NGC 2403, NGC 6946 and IC 342, TOSI M., DIAZ Angeles I. ... 217 571
'Garland' - an unusual object near NGC 3077, KARACHENTSEV I.D., KARACHENTSEVA V.E. ... 217 731
A family of self-consistent models of elliptical galaxies, STIAVELLI M., BERTIN G. ... 217 735
A search for neutral hydrogen in red elliptical galaxies, APPLETON P.N., SPARKS W.B., PEDLAR A., WILKINSON A. ... 217 779
A numerical study of the stability of spherical galaxies, MERRITT David, AGUILAR Luis A. ... 217 787

GALAXIES - ACTIVE

Rotation and velocity dispersion in the stellar component of NGC 1316 (Fornax A), BOSMA A., SMITH R.M., WELLINGTON K.J. ... 212 301
The nuclear colours of weakly active elliptical galaxies, JENKINS C.R., BLACKMAN C.P. ... 212 385
Soft gamma-ray production in active galactic nuclei, SIKORA Marek, ZBYSZEWSKA Magda ... 212 553
Interplanetary scintillation observations of 57 flat-spectrum sources at 327 MHz, VIJAYANARASIMHA Usha, ANANTHAKRISHNAN S., SWARUP G. ... 212 601
Infrared study and classification of optically faint steep-spectrum radio sources, WALSH D., LEBOFSKY M.J., RIEKE G.H., SHONE D., ELSTON R. ... 212 631
The intensities of the sulphur III lines and the ionization mechanisms in Liners, DIAZ Angeles I., PAGEL B.E.J., WILSON I.R.G. ... 212 737
A radio and optical study of the radio galaxy PKS 0511-48, SMITH R.M., ROBERTSON J.G. ... 212 809
The narrow line region of active galaxies - I. Nuclear [O III] profiles WHITTLE Mark ... 213 1
The narrow line region of active galaxies - II. Relations between [O III] profile shape and other properties, WHITTLE Mark ... 213 33
Redshifts of radio sources in the 1-Jy sample, ALLINGTON-SMITH J.R., LILLY S.J., LONGAIR M.S. ... 213 243
A radio study of 3C 390.3 - a precessing jet? ALEXANDER Paul ... 213 743
MERLIN observations of OH masers around the active galactic nucleus IC 4553, NORRIS R.P., BAAN W.A., HASCHICK A.D., DIAMOND P.J., BOOTH R.S. ... 213 821
Warmers: the missing link between Starburst and Seyfert galaxies, TERLEVICH Roberto, MELNICK Jorge ... 213 841

CCD magnitudes of 3C radio sources, EALES Stephen A..... 213 899
The variability and radio structure of 3C 159, BROWNE I.W.A., MANTOVANI F., MUXLOW T.W.B., PADRIELLI L., ROMNEY J.D..... 213 945
Faint IRAS galaxies: a new species in the extragalactic zoo, ALLEN D.A., ROCHE P.F., NORRIS R.P..... 213 67P
CCD observations of a rich distant cluster of galaxies (1046+35) containing a classical double radio source, EALES Stephen A..... 214 27
Radio and optical observations of the radio galaxy 0831 + 557, WHYBORN N.D., BROWNE I.W.A., WILKINSON P.N., PORCAS R.W., SPINRAD H..... 214 55
Hotspots in radio galaxies: a comparison with hydrodynamic simulations, SMITH Michael D., NORMAN Michael L., WINKLER Karl-Heinz A., SMARR Larry..... 214 67
Recent star formation in interacting galaxies - II. Super starbursts in merging galaxies, JOSEPH R.D., WRIGHT G.S..... 214 87
Non-stellar radiation in radio galaxies at 3.5 μm, LILLY S.J., LONGAIR M.S., MILLER L..... 214 109
Jets with entrained clouds - I. Hydrodynamic simulations and magnetic field structure, COLEMAN C.S., BICKNELL G.V..... 214 337
The interaction between beams and their cocoons, HUGHES P.A., ALLEN A.J..... 214 399
Coordinated multisite observations of the variability of BL Lac, BRINDLE C., HOUGH J.H., BAILEY J.A., AXON D.J., SCHULZ H., KIKUCHI S., McGRAW J.T., WISNIEWSKI W.J., FONTAINE G., NADESU D., CLAYTON G., ANDERSON E., JAMESON R.F., SMITH R., WALLIS R.E..... 214 619
Cosmological evolution of linear sizes of radio galaxies, KAPAHI Vijay K..... 214 19P
Sulphur III lines and the excitation mechanism in NGC 1052, DIAZ Angeles I., PAGEL B.E.J., TERLEVICH Elera., ... 214 41P
Infrared observations of 1-jansky radio source identifications and empty fields, LILLY S.J., LONGAIR M.S., ALLINGTON-SMITH J.R..... 215 37
The radio halo and active galaxies in the Coma cluster, CORDEY Ralph A..... 215 437
An evolution model for compact double radio sources, CARVALHO Joel C..... 215 463
The morphologies and magnetic field structures of six 3CR double radio galaxies, MILLER L..... 215 773
The gaseous environments of double radio galaxies, MILLER L., LONGAIR M.S., FABBIANO G., TRINCHIERI G., ELVIS M..... 215 799
CCD spectroscopy of the active galaxies NGC 5506 and NGC 7314, MORRIS Simon L., WARD Martin J..... 215 57P
A theoretical model of the M87 jet, FALLE S.A.E.G., WILSON M.J. 216 79
Bright extragalactic radio sources at 2.7 GHz - III. The all-sky catalogue, WALL J.V., PEACOCK J.A. 216 173
The velocity fields and radio structures of the active galaxies NGC 5643 and NGC 7582, MORRIS Simon, WARD Martin, WHITTLE Mark, WILSON A.S., TAYLOR K. ... 216 193
Frequency-dependent polarization in blazars, BJÖRNSSON Claes-Ingvar 216 241
Polarization properties of radio cores in galaxies and quasars, SAIKIA D.J., SWARUP G., KODALI P.D. 216 385
The distances and associated properties of faint radio sources, PERRYMAN M.A.C., DOWNES A.J.B., LILLY S.J. 216 641
The narrow line region of active galaxies - III. Profile comparisons, WHITTLE Mark. 216 817
An X-ray, optical and radio study of PKS 0745-191: a massive cooling flow, FABIAN A.C., ARNAUD K.A., NULSEN P.E.J., WATSON M.G., STEWART G.C., MCHARDY I., SMITH A., COOKE B., ELVIS M., MUSHOTZKY R.F. 216 923
Steady jets, WILSON M.J., FALLE S.A.E.G. 216 971
Serendipitous EXOSAT sources in the region of the Coma cluster: Active Galactic Nuclei with steep X-ray spectra, BRANDUARDI-RAYMONT G., MASON K.O., MURDIN P.G., MARTIN C. 216 1043
The impact of nuclear activity on the disc of NGC 1068, ATHERTON P.D., REAY N.K., TAYLOR K. 216 17P
Dust in elliptical galaxies, SPARKS W.B., WALL J.V., THORNE D.J., JORDEN P.R., van BREDA I.G., RUDD P.J., JORGENSEN H.E. 217 87
A sample of 6C radio sources selected at the peak of the source counts - I. A search for extended sources and multifrequency radio observations, EALES S.A. 217 149
A sample of 6C sources selected at the peak of the source counts - II. Optical identifications, EALES S.A. 217 167
A sample of 6C sources selected at the peak of the source counts - III. An investigation of the variation of the sizes of radio sources with cosmic epoch, EALES S.A. 217 179
The high-redshift evolution of radio galaxies and quasars, PEACOCK J.A. 217 601

The ultraviolet variability of the BL Lacertae object OJ287, HANSON C.G., COE M.J. 217 831

GALAXIES - FORMATION OF
Large-scale structure in the Universe, HEAVENS Alan..... 213 143
Maximum cosmic redshift of quasars at z > 3, SORRELL Wilfred H..... 213 389
A hierarchical explosion scheme for the origin of cosmological structure, CARR B.J., IKEUCHI S..... 213 497
Mechanisms for biased galaxy formation. REES Martin J..... 213 75P
An X-ray, optical and radio study of PKS 0745-191: a massive cooling flow, FABIAN A.C., ARNAUD K.A., NULSEN P.E.J., WATSON M.G., STEWART G.C., MCHARDY I., SMITH A., COOKE B., ELVIS M., MUSHOTZKY R.F. 216 923
'Garland' - an unusual object near NGC 3077, KARACHENTSEV I.D., KARACHENTSEVA V.E. 217 731
The statistics of maxima in primordial density perturbations, PEACOCK J.A., HEAVENS A.F. 217 805

GALAXIES - NUCLEI OF
The nuclear colours of weakly active elliptical galaxies, JENKINS C.R., BLACKMAN C.P..... 212 385
Wind interactions above accretion discs: a model for broad-line regions and collimated outflow, SMITH M.D, RAINE D.J..... 212 425
The intensities of the sulphur III lines and the ionization mechanisms in Liners, DIAZ ANGELES I., PAGEL B.E.J., WILSON I.R.G..... 212 737
The optical luminosity function of Seyfert 1 nuclei, FU-ZHEN CHENG, DANESE L., DE ZOTTI G., FRANCESCHINI A..... 212 857
Shock formation of the broad emission-line regions in QSOs and active galactic nuclei, PERRY J.J., DYSON J.E..... 213 665
8-13 μm spectrophotometry of galaxies - V. The nuclei of five spiral galaxies, ROCHE Patrick F., AITKEN David K..... 213 789
Evidence for underlying galaxies in a complete sample of variable quasars, HAWKINS M.R.S., WOLTJER L..... 214 241
Sulphur III lines and the excitation mechanism in NGC 1052, DIAZ Angeles I., PAGEL B.E.J., TERLEVICH Elena..... 214 41P
Detailed observations of NGC 4151 with IUE - IV. Absorption line spectrum and variability, BROMAGE G.E., BOKSENBERG A., CLAVEL J., ELVIUS A., PENSTON M.V., PEROLA G.C., PETTINI M., SNIJDERS M.A.J., TANZI E.G., ULRICH M.H..... 215 1
Ultra-relativistic bulk motion and radio flux variability of Active Galactic Nuclei, SINGAL Ashok K., GOPAL-KRISHNA..... 215 383
Accretion noise in Active Galactic Nuclei, CRUISE A.M., DODDS P.M..... 215 417
On the stability and evolution of relativistic radiation tori: equations and speculations, BLANDFORD R.D., JAROSZYNSKI M., KUMAR S..... 215 667
The structure of the [O III] nuclear region in the Seyfert 2 galaxy F-427 (ESO 263-G13), FAIRALL A.P., MEABURN J. 216 439
Serendipitous EXOSAT sources in the region of the Coma cluster: Active Galactic Nuclei with steep X-ray spectra, BRANDUARDI-RAYMONT G., MASON K.O., MURDIN P.G., MARTIN C. 216 1043
The impact of nuclear activity on the disc of NGC 1068, ATHERTON P.D., REAY N.K., TAYLOR K. 216 17P
Relative velocities of multiple-nucleus galaxies, SMITH R.M., EFSTATHIOU G., ELLIS R.S., FRENK C.S., VALENTIJN E.A. 216 71P

GALAXIES - SEYFERT
The optical luminosity function of Seyfert 1 nuclei, FU-ZHEN CHENG, DANESE L., DE ZOTTI G., FRANCESCHINI A..... 212 857
8-13 μm spectrophotometry of galaxies - IV. Six more Seyferts and 3C 345, AITKEN D.K., ROCHE P.F..... 213 777
8-13 μm spectrophotometry of galaxies - V. The nuclei of five spiral galaxies, ROCHE Patrick F., AITKEN David K..... 213 789
A gravitational origin for the broad emission line profiles in quasars and Seyfert galaxies: time variation, CARROLL T.J..... 214 321
JHKL properties of emission-line galaxies, GLASS I.S., MOORWOOD A.F.M..... 214 429
Radio Seyferts and the forbidden-line region, PEDLAR A., DYSON J.E., UNGER S.W..... 214 463
Detailed observations of NGC 4151 with IUE - IV. Absorption line spectrum and

variability, BROMAGE G.E., BOKSENBERG A., CLAVEL J., ELVIUS A., PENSTON M.V., PEROLA G.C., PETTINI M., SNIJDERS M.A.J., TANZI E.G., ULRICH M.H. 215 1
The interstellar spectrum of the bright Seyfert galaxy NGC 3783: evidence for an extragalactic origin of high-velocity clouds, WEST Kym A., PETTINI Max, PENSTON M.V., BLADES J. Chris, MORTON Donald C. 215 481
Quasar discs - I. the Baldwin effect, NETZER Hagai 216 63
The velocity fields and radio structures of the active galaxies NGC 5643 and NGC 7582, MORRIS Simon, WARD Martin, WHITTLE Mark, WILSON A.S., TAYLOR K. ... 216 193
The structure of the [O III] nuclear region in the Seyfert 2 galaxy F-427 (ESO 263-G13), FAIRALL A.P., MEABURN J. 216 439
UV and optical observations of PG 1351+64, a bright Seyfert galaxy or a low-luminosity QSO, TREVES A., DREW J., FALOMO R., MARASCHI L., TANZI E.G., WILSON R. 216 529
The nature of the megamaser galaxy IC 4553 (Arp 220), NORRIS R.P. 216 701
The narrow line region of active galaxies - III. Profile comparisons, WHITTLE Mark. 216 817
EXOSAT observations of a strong soft X-ray excess in MKN 841, ARNAUD K.A., BRANDUARDI-RAYMONT G., CULHANE J.L., FABIAN A.C., HAZARD C., McGLYNN T.A., SHAFER R.A., TENNANT A.F., WARD M.J. 217 105
Thermal and non-thermal emission from NGC 1275 (3C 84), GEAR W.K., GEE G., ROBSON E.I., NOLT I.G. 217 281
Continuous rapid X-ray variability and spectral changes in NGC 4051, LAWRENCE A., WATSON M.G., POUNDS K.A., ELVIS Martin 217 685

GALAXY CLUSTERS

Predictions of distance within the Local Group, MISHRA RICHARD 212 163
A method for determining the spatial correlation function from a sample with partial distance information, PHILLIPPS STEVEN 212 657
Multi-object spectroscopy of the distant cluster AC103, SHARPLES RAY M., ELLIS RICHARD S., COUCH WARRICK J., GRAY PETER M. 212 687
Simulations of galaxy cluster relaxation, YABUSHITA S., ALLEN A.J. 213 117
Large-scale structure in the Universe, HEAVENS Alan 213 143
CCD photometry of a cluster of galaxies at a redshift of 0.57, COUCH Warrick J., SHANKS T., PENCE W.D. 213 215
Taxonomical analysis of superclusters - I. The Hercules and Perseus superclusters, MOLES M., OLMO A. del, PEREA J. 213 365
On the dynamical evolution of a spheroidal cluster, SOM SUNDER G., KOCHHAR R.K 213 381
First ranked galaxies in groups and clusters, BHAVSAR Suketu P., BARROW John D 213 857
Gravitational lensing and galaxy shape, WEBSTER Rachel L. 213 871
Correlation analyses of deep galaxy samples - III, STEVENSON P.R.F., SHANKS T., FONG R., MacGILLIVRAY H.T. 213 953
Constraints on decaying particles from Virgo infall, EFSTATHIOU G. 213 29P
Mechanisms for biased galaxy formation. REES Martin J. 213 75P
CCD observations of a rich distant cluster of galaxies (1046+35) containing a classical double radio source, EALES Stephen A. 214 27
$r^{\frac{1}{4}}$ models of cluster X-ray sources, PALLISTER Ian C. 215 335
The radio halo and active galaxies in the Coma cluster, CORDEY Ralph A. 215 437
Gas clouds in clusters of galaxies, REPHAELI Yoel, WANDEL Amri 215 453
The dynamical state of groups of galaxies, BARNES Joshua 215 517
Minimal spanning trees, filaments and galaxy clustering, BARROW John D., BHAVSAR Suketu P., SONODA D.H. 216 17
Detection of voids by randomly placed spheres, PANEK Miroslaw 216 85
On dissipational processes during galaxy cluster relaxation, ALLEN A.J., YABUSHITA S. 216 155
Statistics of voids of galaxies, SOLTAN Andrzej 216 537
Serendipitous EXOSAT sources in the region of the Coma cluster: Active Galactic Nuclei with steep X-ray spectra, BRANDUARDI-RAYMONT G., MASON K.O., MURDIN P.G., MARTIN C. 216 1043
Relative velocities of multiple-nucleus galaxies, SMITH R.M., EFSTATHIOU G., ELLIS R.S., FRENK C.S., VALENTIJN E.A. 216 71P
Spectral energy distributions for galaxies in high-redshift clusters - II. 0016 + 16 at z = 0.54, ELLIS Richard S., COUCH Warrick J., MacLAREN Iain KOO David C. 217 239
Infrared photometry of galaxies in the Butcher-Oemler cluster 0024+1654, LILLY S.J., GUNN J.E. 217 551
The statistics of maxima in primordial density perturbations, PEACOCK J.A., HEAVENS A.F. 217 805

On the reliability of Virgo infall in estimating the mass density of the Universe, BUSHOUSE H., MELOTT A.L., CENTRELLA J., GALLAGHER III J.S. 217 7P

GAMMA-RAY ASTRONOMY
Pair production, Comptonization and dynamics in astrophysical plasmas, GUILBERT P.W., STEPNEY SUSAN..... 212 523
On the astronomical nature of the sources of gamma-ray bursts, SHKLOVSKII I.S., MITROFANOV I.G..... 212 545
Soft gamma-ray production in active galactic nuclei, SIKORA MAREK, ZBYSZEWSKA MAGDA 212 553

GRAVITATION AND GRAVITATIONAL RADIATION
Mechanics of the affine star model, CARTER B., LUMINET J.P..... 212 23
Tidal squeezing of stars by Schwarzschild black holes, LUMINET JEAN-PIERRE, MARCK JEAN-ALAIN..... 212 57
The accuracy of the quadrupole approximation for the gravitational radiation from pulsating stars, BALBINSKI Eugene, DETWEILER Steven, LINDBLOM Lee, SCHUTZ Bernard F..... 213 553
Newtonian N-body calculations of the advance of Mercury's perihelion, NARLIKAR J.V., RANA N.C..... 213 657
Gravitational lensing and galaxy shape, WEBSTER Rachel L..... 213 871
Gravitational field energy density for spheres and black holes, LYNDEN-BELL D., KATZ J..... 213 21P
The gravitational lens effect and the surface density of quasars near foreground galaxies, ZUIDERWIJK E.J..... 215 639
A new shear instability in rotating, self-gravitating, perfect fluids, Eugene BALBINSKI 216 897
Collapse of a radiating star, DE OLIVEIRA A.K.G., SANTOS N.O., KOLASSIS C.A..... 216 1001
Influence of a stochastic background of gravitational waves on the timing of pulsars, MASHHOON Bahram. 217 265

HERBIG-HARO OBJECTS
Herbig-Haro objects 1 and 2: another infrared candidate for their energy source, RODRIGUEZ L.F., ROTH M., TAPIA M..... 214 9P
Faint structures in the NGC 2261-HH39 region, WALSH J.R., MALIN D.F. 217 31

HIGH-VELOCITY CLOUDS
The interstellar spectrum of the bright Seyfert galaxy NGC 3783: evidence for an extragalactic origin of high-velocity clouds, WEST Kym A., PETTINI Max, PENSTON M.V., BLADES J. Chris, MORTON Donald C..... 215 481

INFRARED ASTRONOMY
Infrared study and classification of optically faint steep-spectrum radio sources, WALSH D., LEBOFSKY M.J., RIEKE G.H., SHONE D., ELSTON R..... 212 631
Line doubling in the 272-day long-period variable V Cancri, DOMINY JAMES F., WALLERSTEIN GEORGE, SUNTZEFF NICHOLAS B..... 212 671
The infrared spectra of red variables - I. Super-lithium-rich stars, WHITELOCK P.A., CATCHPOLE R.M..... 212 873
The morphology of NGC 6334 IRS V-1, SIMON THEODORE, DYCK H.M., WOLSTENCROFT RAMON D., JOYCE RICHARD R., JOHNSON PAUL E., McLEAN IAN S..... 212 21P
JHK photometry of planetary nebulae, WHITELOCK Patricia A..... 213 59
Effective temperatures, angular diameters and radii of Ap stars, SHALLIS M.J., BARUCH J.E.F., BOOTH A.J., SELBY M.J..... 213 307
8-13 μm spectrophotometry of galaxies - IV. Six more Seyferts and 3C 345, AITKEN D.K., ROCHE P.F..... 213 777
8-13 μm spectrophotometry of galaxies - V. The nuclei of five spiral galaxies, ROCHE Patrick F., AITKEN David K..... 213 789
Near-infrared sources in the molecular cloud G35.2-0.74, TAPIA M., ROTH M., PERSI P., FERRARI-TONIOLO M..... 213 833
JHKL observations of IRAS sources - II, WHITELOCK Patricia..... 213 51P
Faint IRAS galaxies: a new species in the extragalactic zoo, ALLEN D.A., ROCHE P.F., NORRIS R.P..... 213 67P
Non-stellar radiation in radio galaxies at 3.5 μm, LILLY S.J., LONGAIR M.S., MILLER L..... 214 109
Herbig-Haro objects 1 and 2: another infrared candidate for their energy source, RODRIGUEZ L.F., ROTH M., TAPIA M..... 214 9P

Infrared observations of the extinct cometary candidate minor planet (3200) 1983TB, GREEN S.F., MEADOWS A.J., DAVIES J.K..... 214 29P
Infrared observations of 1-jansky radio source identifications and empty fields, LILLY S.J., LONGAIR M.S., ALLINGTON-SMITH J.R..... 215 37
An optical and near-infrared study of the AM Herculis-type binary CW 1103+254, BAILEY Jeremy, WATTS D.J., SHERRINGTON M.R., AXON D.J., GILES A.B., HANES D.A., HEATHCOTE S.R., HOUGH J.H., HUGHES S., JAMESON R.F., McLEAN I.... 215 179
Continuum energy distribution and photometric behaviour of π Aqr, GORAYA P.S..... 215 265
Far-infrared emission from dust clouds with two embedded sources, GHOSH S.K., TANDON S.N..... 215 315
An investigation of the interstellar extinction - II. Towards the mid-infrared sources in the Galactic Centre, ROCHE Patrick F., AITKEN David K..... 215 425
Infrared spectropolarimetric observations of BNKL: the grain alignment mechanism, AITKEN D.K., BAILEY J.A., ROCHE P.F., HOUGH J.M..... 215 815
B335 - a candidate protostar?, GEE Graham, GRIFFIN Matthew J., CUNNINGHAM Charles T., EMERSON J.P., ADE Peter A.R., CAROFF Lawrence J..... 215 15P
Condensation of dust around the WC7 star HD 192641 (WR 137), WILLIAMS P.M., LONGMORE A.J., VAN DER HUCHT K.A., TALEVERA A., WAMSTEKER W.M., ABBOTT D.C., TELESCO C.M..... 215 23P
The molecular hydrogen emission associated with the Orion bright bar, HAYASHI Masahiko, HASEGAWA Tetsuo, GATLEY Ian, GARDEN Ron, KAIFU Norio..... 215 31P
IRAS observations of MKN 501 with quasi-simultaneous observations at radio, near-infrared and ultraviolet wavelengths, SEMBAY S., COE M.J., CLEMENT R, DEAN A.J., HANSON C.G., FERRARI-TONIOLO M., PERSI P., SPINOGLIO L., BASSANI L., DI COCCO G., MACDOUGALL J.R. ELSMORE B. 216 121
The distances and associated properties of faint radio sources, PERRYMAN M.A.C., DOWNES A.J.B., LILLY S.J. 216 641
VJHK observations of the RR Lyrae star VY Serpentis, LONGMORE A.J., FERNLEY J.A., JAMESON R.F., SHERRINGTON M.R., FRANK J. 216 873
The late infrared development of Nova Serpentis 1970, MITCHELL R.M., ROBINSON G., HYLAND A.R., NEUGEBAUER G. 216 1057
Illumination of reflection nebulosity in the L1551 dark cloud by the infrared sources IRS5 and L1551NE, DRAPER P.W., WARREN-SMITH R. F., SCARROTT S.M. 216 7P
Molecular hydrogen emission from the maser source W75N(OH), MOUNTAIN C.M., SELBY M.J., ZADROZNY A., HARTQUIST T.W. 216 13P
Solid CO in the Taurus dark clouds, WHITTET D.C.B., LONGMORE A.J., MCFADZEAN A.D..... 216 45P
Near-infrared observations of the bipolar outflow source G35.2N, DENT W.R.F., LITTLE L.T., SATO S., OHISHI M., YAMASHITA T. 217 217
Thermal and non-thermal emission from NGC 1275 (3C 84), GEAR W.K., GEE G., ROBSON E.I., NOLT I.G. 217 281
The origin of the infrared light of cataclysmic variable stars, BERRIMAN G., SZKODY P., CAPPS R.W. 217 327
Circumstellar material and the light variations of RV Tauri stars, EVANS Lloyd T. 217 493
Infrared photometry of galaxies in the Butcher-Oemler cluster 0024+1654, LILLY S.J., GUNN J.E. 217 551
Observations of Comet Crommelin - II. The dust component, EATON N., ZARNECKI J.C. 217 659

INSTRUMENTS AND TECHNIQUES

Automated analysis of objective-prism spectra - I. Quasar detection, HEWETT P.C., IRWIN M.J., BUNCLARK P., BRIDGELAND M.T., KIBBLEWHITE E.J., HE X.T., SMITH M.G..... 213 971
Automatic analysis of crowded fields, IRWIN M.J..... 214 575
The flat-field Mersenne-Schmidt, WILLSTROP R.V. 216 411
On the possibility of increasing the throughput of astronomical spectrographs by overfilling the dispersing element, DIEGO F., WALKER D.D. 217 347
Design philosophy of the forthcoming echelle spectrographs for the AAT and LPO WALKER D.D., DIEGO F. 217 355

INTERGALACTIC MEDIUM

Molecular hydrogen in the z=2.811 absorbing material toward the quasar PKS 0528-250, LEVSHAKOV S.A., VARSHALOVICH D.A..... 212 517
An optical search for the intergalactic HI cloud in Leo, KIBBLEWHITE E.J., CAWSON M.G.M., DISNEY M.J., PHILLIPPS S..... 213 111

X-ray scattering by intergalactic dust, EVANS A., NORWELL G.A., BODE M.F..... 213 1P
Constraints on decaying particles from Virgo infall, EFSTATHIOU G..... 213 29P
Reheating of the intergalactic medium at z>10, COUCHMAN H.M.P..... 214 137
Slow pulsar scintillation and the spectrum of interstellar electron density fluctuations, GOODMAN Jeremy, NARAYAN Ramesh..... 214 519
$r^{\frac{1}{4}}$ models of cluster X-ray sources, PALLISTER Ian C..... 215 335
Gas clouds in clusters of galaxies, REPHAELI Yoel, WANDEL Amri..... 215 453
The interstellar spectrum of the bright Seyfert galaxy NGC 3783: evidence for an extragalactic origin of high-velocity clouds, WEST Kym A., PETTINI Max, PENSTON M.V., BLADES J. Chris, MORTON Donald C..... 215 481

INTERPLANETARY MEDIUM
The phase power spectrum of the solar wind measured by long-baseline interferometry at 81.5 MHz, REES W.G., DUFFETT-SMITH P.J..... 212 463
Interplanetary scintillation observations of 57 flat-spectrum sources at 327 MHz, VIJAYANARASIMHA USHA, ANANTHAKRISHNAN S., SWARUP G..... 212 601
A model for SNR evolution in a cloudy medium and its application to N49, SHULL Jr.Peter, DYSON J.E., KAHN F.D., WEST KYM A..... 212 799

INTERSTELLAR GRAINS
Polarization measurements of the Bok globule B361, WILLIAMS I.P., VEDI K., GRIFFITHS W.K., BHATT H.C., KULKARNI P.V., ASHOK N.M., WALLIS R.E..... 212 181
The destruction of dust grains in collisions of a supernova with a circumstellar medium, ITOH HIROSHI..... 212 309
Sticking coefficients for atoms and molecules at the surfaces of interstellar dust grains, LEITCH-DEVLIN M.A., WILLIAMS D.A..... 213 295
8-13 μm spectrophotometry of galaxies - IV. Six more Seyferts and 3C 345, AITKEN D.K., ROCHE P.F..... 213 777
How common are 'dust-lanes' in early-type galaxies?, SADLER Elaine M., GERHARD ORTWIN E..... 214 177
Ice in the Taurus molecular cloud: modelling of the 3-μm profile, VAN DE BULT C.E.P.M., GREENBERG J Mayo, WHITTET D.C.B..... 214 289
Evidence for hydrogenated amorphous carbon in the Red Rectangle, DULEY W.W.... 215 259
Polarization measurements of stars in the region of Bok globule B5, JOSHI U.C., KULKARNI P.V., BHATT H.C., KULSHRESTHA A.K., DESHPANDE M.R..... 215 275
Far-infrared emission from dust clouds with two embedded sources, GHOSH S.K., TANDON S.N..... 215 315
An investigation of the interstellar extinction - II. Towards the mid-infrared sources in the Galactic Centre, ROCHE Patrick F., AITKEN David K..... 215 425
Evidence for discs and jets associated with R and T Cr A, WARD-THOMPSON D., WARREN-SMITH R.F., SCARROTT S.M., WOLSTENCROFT R.D..... 215 537
Infrared spectropolarimetric observations of BNKL: the grain alignment mechanism, AITKEN D.K., BAILEY J.A., ROCHE P.F., HOUGH J.M..... 215 815
The interstellar 4430 Å band in the Small Magellanic Cloud, HOUZIAUX L., NANDY K., MORGAN D.H..... 215 5P
Condensation of dust around the WC7 star HD 192641 (WR 137), WILLIAMS P.M., LONGMORE A.J., VAN DER HUCHT K.A., TALEVERA A., WAMSTEKER W.M., ABBOTT D.C., TELESCO C.M..... 215 23P
Polarimetric evidence against a collimated outflow in the Horsehead Nebula, WARREN-SMITH R.F., GLEDHILL T.M., SCARROTT S.M..... 215 75P
Boxy isophotes, discs and dust lanes in elliptical galaxies, LAUER Tod R. 216 429
The late infrared development of Nova Serpentis 1970, MITCHELL R.M., ROBINSON G., HYLAND A.R., NEUGEBAUER G. 216 1057
Solid CO in the Taurus dark clouds, WHITTET D.C.B., LONGMORE A.J., MCFADZEAN A.D..... 216 45P
Depletion of elements in shock-driven gas, GONDHALEKAR P.M. 216 57P
Dust in elliptical galaxies, SPARKS W.B., WALL J.V., THORNE D.J., JORDEN P.R., van BREDA I.G., RUDD P.J., JORGENSEN H.E. 217 87
Near-infrared observations of the bipolar outflow source G35.2N, DENT W.R.F., LITTLE L.T., SATO S., OHISHI M., YAMASHITA T. 217 217
The origin of the infrared light of cataclysmic variable stars, BERRIMAN G., SZKODY P., CAPPS R.W. 217 327
Time-dependent sticking coefficients and mantle growth on interstellar grains, JONES A.P., WILLIAMS D.A. 217 413
Circumstellar material and the light variations of RV Tauri stars, EVANS Lloyd T. 217 493
Chemical modelling of molecular sources - IV. Time-dependent chemistry of

dark clouds, MILLAR T.J., NEJAD L.A.M. 217 507
Depletion of sulphur in the interstellar medium, GONDHALEKAR P.M. 217 585
IUE observations of RCB stars during extinction minima, EVANS A., WHITTET D.C.B., DAVIES J.K., KILKENNY D., BODE M.F. 217 767
Time-dependent chemistry - II. Dependence of the chemistry on the initial [C]/[O] abundance ratio, WATT, GRAEME D..... 212 93
Disc-like magneto-gravitational equilibria, MESTEL L., RAY T.P..... 212 275
A re-examination of some bar-driven models of spiral structure, SCHWARZ M.P... 212 677
A model for SNR evolution in a cloudy medium and its application to N49, SHULL Jr.PETER, DYSON J.E., KAHN F.D., WEST KYM A..... 212 799

INTERSTELLAR MEDIUM

Time-dependent chemistry-III. The effects of sulphur and oxygen depletion on the interstellar abundances of sulphur-bearing molecules, WATT Graeme D., CHARNLEY Steven B..... 213 157
Quasi-periodic scintillation patterns of the pulsars PSR 1133+16 and PSR 1642-03, HEWISH A., WOLSZCZAN A., GRAHAM D.A..... 213 167
Low-frequency variability of pulsars, BLANDFORD Roger, NARAYAN Ramesh..... 213 591
Oscillator strengths for transitions in N I and the interstellar abundance of nitrogen, HIBBERT A., DUFTON P.L., KEENAN F.P..... 213 721
Long-chain hydrocarbon molecules in the interstellar medium: search for 1-cyanobut-3-ene-1-yne, CH_2=CH-C≡C-C≡N, KROTO H.W., McNAUGHTON D., LITTLE L.T., MATTHEWS N..... 213 753
Frequency drift in pulsar scintillation, SMITH F.G., WRIGHT N.C..... 214 97
An investigation of diffuse cloud chemistry - II. Inferred intersellar parameters, MANN A.P.C., WILLIAMS D.A..... 214 279
Slow pulsar scintillation and the spectrum of interstellar electron density fluctuations, GOODMAN Jeremy, NARAYAN Ramesh..... 214 519
Changing parameters along the path to the Vela pulsar, HAMILTON P.A., HALL P.J., COSTA M.E..... 214 5P
Population ratios for the fine structure ground state of Si II applicable to the interstellar medium, KEENAN F.P., JOHNSON C.T., KINGSTON A.E., DUFTON P.L..... 214 37P
Interstellar cloud collisions, LATTANZIO J.C., MONAGHAN J.J., PONGRACIC H., SCHWARZ M.P..... 215 125
Cosmic rays and the Parker instability, NELSON A.H..... 215 161
An interpretation of the mass and velocity spectrum of interstellar H I clouds, CLIFFORD Peter 216 93
Abundances of O, Mg, S, Cr, Mn, Ti, Ni and Zn from absorption lines of neutral gas in the Large Magellanic Cloud in front of R136, de BOER Klaas S., FITZPATRICK Edward L, SAVAGE Blair D. 217 115
The chemical evolution of spiral galaxies: M51, NGC 2403, NGC 6946 and IC 342, TOSI M., DIAZ Angeles I. 217 571
Depletion of sulphur in the interstellar medium, GONDHALEKAR P.M. 217 585
A search for neutral hydrogen in red elliptical galaxies, APPLETON P.N., SPARKS W.B., PEDLAR A., WILKINSON A. 217 779

LABORATORY ASTROPHYSICS

New results for ion-molecule reactions of HC_3N in dense interstellar clouds, BOHME D.K., RAKSIT A.B..... 213 717
The HCS^+/CS abundance ratio in interstellar clouds, MILLAR T.J., ADAMS N.G., SMITH D., CLARY D.C..... 216 1025
Depletion of elements in shock-driven gas, GONDHALEKAR P.M. 216 57P

MAGELLANIC CLOUDS

CCD observations of the RR Lyrae stars in NGC 2210 and the distance to the Large Magellanic Cloud, WALKER ALISTAIR R..... 212 343
Period change in Magellanic Cloud Cepheids, DEASY H.P., WAYMAN P.A..... 212 395
BVI reddenings of Magellanic Cloud Cepheids, CALDWELL J.A.R., COULSON I.M..... 212 879
Bright red variables of large amplitude in the Magellanic Clouds, LLOYD EVANS T..... 212 955
New planetary nebulae in the Small Magellanic Cloud, MORGAN D.H., GOOD A.R.... 213 491
A survey for red variables in the LMC I, GLASS I.S., REID Neill..... 214 405
Erratum: BVI reddenings of Magellanic Cloud Cepheids by CALDWELL J.A.R., COULSON I.M..... 214 639
OH observations in the direction of H_2O masers in the Large Magellanic Cloud, GARDNER F.F., WHITEOAK J.B..... 215 103

The interstellar 4430 Å band in the Small Magellanic Cloud, HOUZIAUX L., NANDY K., MORGAN D.H. 215 5P
The colour-magnitude diagram of the halo of the Small Magellanic Cloud, BRUCK M.T., CANNON R.D., HAWKINS M.R.S. 216 165
Optical spectrophotometric study of supernova remnants in the Large Magellanic Cloud, DANZIGER I.J., LEIBOWITZ E.M. 216 365
New Wolf-Rayet stars in the Large Magellanic Cloud, MORGAN D.H., GOOD A.R. ... 216 459
Abundances of O, Mg, S, Cr, Mn, Ti, Ni and Zn from absorption lines of neutral gas in the Large Magellanic Cloud in front of R136, de BOER Klaas S., FITZPATRICK Edward L, SAVAGE Blair D. 217 115
The distance to the LMC from ZAMS fitting to the young cluster NGC 1866, WALKER Alistair R. 217 13P

MASERS
The circumstellar envelopes around OH/IR stars, DIAMOND P.J., NORRIS R.P., ROWLAND P.R., BOOTH R.S., NYMAN L-A. 212 1
The unusual OH envelope of U Orionis, CHAPMAN JESSICA M., COHEN R.J. 212 375
Erratum: A semi-classical description of radiation transport in astrophysical masers (MN 211, p. 804) FIELD D., RICHARDSON I.M. 213 495
OH masers associated with compact H II regions in the G45.1 + 0.1 complex, BAART E.E., COHEN R.J. 213 641
MERLIN observations of OH masers around the active galactic nucleus IC 4553, NORRIS R.P., BAAN W.A., HASCHICK A.D., DIAMOND P.J., BOOTH R.S. 213 821
OH observations in the direction of H_2O masers in the Large Magellanic Cloud, GARDNER F.F., WHITEOAK J.B. 215 103
The nature of the megamaser galaxy IC 4553 (Arp 220), NORRIS R.P. 216 701
Interferometric observations of the mainline OH maser emission from OH127.8-0.0, DIAMOND P.J., NORRIS R.P., BOOTH R.S. 216 1P
Molecular hydrogen emission from the maser source W75N(OH), MOUNTAIN C.M., SELBY M.J., ZADROZNY A., HARTQUIST T.W. 216 13P
A search for H_2CO emission towards OH masers, FORSTER J.R., GOSS W.M., GARDNER F.F., STEWART R.T. 216 35P
An OH maser outburst in Cepheus A, COHEN R.J., BREBNER G.C. 216 51P
A semi-classical description of radiation transport in many-level astrophysical masers: competitive gain in OH hyperfine transitions, FIELD D.. 217 1

METEORS
A possible origin for some ancient December fireballs, FOX Ken, WILLIAMS Iwan P. 217 407
The structure of the Geminid meteor stream - I. The effect of planetary perturbations, JONES J. 217 523
Planetary perturbations on the Geminid meteor stream, HUNT J., WILLIAMS Iwan P., FOX Ken 217 533

MICROWAVE BACKGROUND
Universal rotation: how large can it be? BARROW John D., JUSZKIEWICZ R., SONODA D.H. 213 917
Hot and cold spots in the microwave background radiation, SAZHIN M.V. 216 25P

MOLECULES AND MOLECULAR CLOUDS
Time-dependent chemistry - II. Dependence of the chemistry on the initial [C]/[O] abundance ratio, WATT GRAEME D. 212 93
Molecular hydrogen in the z=2.811 absorbing material toward the quasar PKS 0528-250, LEVSHAKOV S.A., VARSHALOVICH D.A. 212 517
Line doubling in the 272-day long-period variable V Cancri, DOMINY JAMES F., WALLERSTEIN GEORGE, SUNTZEFF NICHOLAS B. 212 671
Sticking coefficients for atoms and molecules at the surfaces of interstellar dust grains, LEITCH-DEVLIN M.A., WILLIAMS D.A. 213 295
OH masers associated with compact H II regions in the G45.1 + 0.1 complex, BAART E.E., COHEN R.J. 213 641
New results for ion-molecule reactions of HC_3N in dense interstellar clouds, BOHME D.K., RAKSIT A.B. 213 717
Long-chain hydrocarbon molecules in the interstellar medium: search for 1-cyanobut-3-ene-1-yne, CH_2=CH-C≡C-C≡N, KROTO H.W., McNAUGHTON D., LITTLE L.T., MATTHEWS N. 213 753
MERLIN observations of OH masers around the active galactic nucleus IC 4553, NORRIS R.P., BAAN W.A., HASCHICK A.D., DIAMOND P.J., BOOTH R.S. 213 821

Near-infrared sources in the molecular cloud G35.2-0.74, TAPIA M., ROTH M., PERSI P., FERRARI-TONIOLO M..... 213 833
Erratum: On the ortho-H_2/para-H_2 ratio in molecular clouds. (MN 209, P.25), FLOWER.D.R., WATT G.D..... 213 991
CS 5-4 observations of OMC1: evidence for external heating of the quiescent gas, PADMAN R., SCOTT P.F., VIZARD D.R., WEBSTER A.S..... 214 251
Rate coefficients for the rotational excitation of CO by ortho- and para-H_2, FLOWER D.R., LAUNAY J.M..... 214 271
An investigation of diffuse cloud chemistry - II. Inferred intersellar parameters, MANN A.P.C., WILLIAMS D.A..... 214 279
Ice in the Taurus molecular cloud: modelling of the 3-μm profile, VAN DE BULT C.E.P.M., GREENBERG J Mayo, WHITTET D.C.B..... 214 289
Rotational excitation of HCO^+ by collisions with H_2, MONTEIRO T.S..... 214 419
OH observations in the direction of H_2O masers in the Large Magellanic Cloud, GARDNER F.F., WHITEOAK J.B..... 215 103
Interstellar cloud collisions, LATTANZIO J.C., MONAGHAN J.J., PONGRACIC H., SCHWARZ M.P..... 215 125
Westerbork 6-cm observations of H_2CO: absorption in the direction of W49A, GOSS W.M., TILANUS R.P.J..... 215 197
Far-infrared emission from dust clouds with two embedded sources, GHOSH S.K., TANDON S.N..... 215 315
Large-velocity-gradient modelling of Sagittarius B2, BROWN R.D., CRAGG D.M.... 215 395
The molecular hydrogen emission associated with the Orion bright bar, HAYASHI Masahiko, HASEGAWA Tetsuo, GATLEY Ian, GARDEN Ron, KAIFU Norio..... 215 31P
An interpretation of the mass and velocity spectrum of interstellar H I clouds, CLIFFORD Peter 216 93
Submillimetre line and continuum observations of the S255 molecular cloud, RICHARDSON K.J., WHITE Glenn J., GEE G., GRIFFIN M.J., CUNNINGHAM C.T., ADE P.A.R., AVERY L.W. 216 713
Echelle observations of the complex Hα and [N II] line profiles from the Galactic H II region M17 (NGC 6618), CLAYTON C.A., IVCHENKO V.N., MEABURN J., WALSH J.R..... 216 761
Theoretical studies of interstellar molecular shocks - I. General formulation and effects of the ion-molecule chemistry, FLOWER D.R., PINEAU DES FORETS G., HARTQUIST T.W. 216 775
The HCS^+/CS abundance ratio in interstellar clouds, MILLAR T.J., ADAMS N.G., SMITH D., CLARY D.C..... 216 1025
A search for H_2 CO emission towards OH masers, FORSTER J.R., GOSS W.M., GARDNER F.F., STEWART R.T. 216 35P
Solid CO in the Taurus dark clouds, WHITTET D.C.B., LONGMORE A.J., MCFADZEAN A.D..... 216 45P
An OH maser outburst in Cepheus A, COHEN R.J., BREBNER G.C. 216 51P
Near-infrared observations of the bipolar outflow source G35.2N, DENT W.R.F., LITTLE L.T., SATO S., OHISHI M., YAMASHITA T. 217 217
The rotating interstellar disc in G35.2-0.74, LITTLE L.T., DENT W.R.F., HEATON B., DAVIES S.R., WHITE G.J. 217 227
Time-dependent sticking coefficients and mantle growth on interstellar grains, JONES A.P., WILLIAMS D.A. 217 413
Ammonia observations of G34.3+0.1: A 'bipolar' HII region? HEATON B.D., MATTHEWS N., LITTLE L.T., DENT W.R.F. 217 485
Chemical modelling of molecular sources - IV. Time-dependent chemistry of dark clouds, MILLAR T.J., NEJAD L.A.M. 217 507
The chemical evolution of spiral galaxies: M51, NGC 2403, NGC 6946 and IC 342, TOSI M., DIAZ Angeles I. 217 571
The polarization of fluorescence in the vibration-rotation bands of molecular hydrogen, WEBSTER Adrian 217 761

NEBULAE - GASEOUS

OH masers associated with compact H II regions in the G45.1 + 0.1 complex, BAART E.E., COHEN R.J..... 213 641
An upper limit on the proper motion of optical filaments near the Cetus Arc (Loop 2), JONES A.W., MEABURN J..... 213 711
Warmers: the missing link between Starburst and Seyfert galaxies, TERLEVICH Roberto, MELNICK Jorge..... 213 841
Optical polarization in the bipolar nebula NGC 6302, KING D.J., SCARROTT S.M., SHIRT J.V..... 213 11P
Speckle observations of the central source in the bipolar nebula NGC 2346,

MEABURN J., WALSH J.R., MORGAN B.L., HEBDEN J.C., VINE H., STANDLEY C..... 213 35P
Self-similar condensation of spherically symmetric self-gravitating isothermal gas clouds, WHITWORTH Ant, SUMMERS Danny..... 214 1
Cloud fragmentation and stellar masses, LARSON Richard B..... 214 379
Erratum (missing plate): An upper limit on the proper motion of optical filaments near the Cetus Arc (Loop 2), JONES A.W., MEABURN J., (Vol. 213, p. 711)..... 215 159
Evidence for hydrogenated amorphous carbon in the Red Rectangle, DULEY W.W.... 215 259
Echelle observations of high-velocity lobes projecting from the core of the bipolar nebula MZ-3, MEABURN J., WALSH J.R..... 215 761
Infrared spectropolarimetric observations of BNKL: the grain alignment mechanism, AITKEN D.K., BAILEY J.A., ROCHE P.F., HOUGH J.M..... 215 815
The molecular hydrogen emission associated with the Orion bright bar, HAYASHI Masahiko, HASEGAWA Tetsuo, GATLEY Ian, GARDEN Ron, KAIFU Norio..... 215 31P
The Sgr A East H II complex at l=-0°.02,b=-0°.07, GOSS W.M., SCHWARZ U.J., VAN GORKOM J.H., EKERS R.D..... 215 69P
Studies of violent star formation in extragalactic systems - I. Population synthesis model for the ionizing clusters of giant H II regions and H II galaxies, MELNICK Jorge, TERLEVICH Roberto, EGGLETON P.P. 216 255
Echelle observations of the complex Hα and [N II] line profiles from the Galactic H II region M17 (NGC 6618), CLAYTON C.A., IVCHENKO V.N., MEABURN J., WALSH J.R..... 216 761
A numerical method for three-dimensional simulations of collapsing, isothermal, magnetic gas clouds, PHILLIPS G.J., MONAGHAN J.J. 216 883
Molecular hydrogen emission from the maser source W75N(OH), MOUNTAIN C.M., SELBY M.J., ZADROZNY A., HARTQUIST T.W. 216 13P
Einstein observations of the Rosette nebula and the Mon OB2 association, LEAHY D.A. 217 69

NEBULAE - PLANETARY

Shapes of planetary nebulae, KAHN F.D., WEST KYM A..... 212 837
JHK photometry of planetary nebulae, WHITELOCK Patricia A..... 213 59
A search for radial velocity variations in the central stars of southern planetary nebulae and planetary-like objects, AUGENSEN H.J..... 213 399
New planetary nebulae in the Small Magellanic Cloud, MORGAN D.H., GOOD A.R.... 213 491
Expansion velocities for selected planetary nebulae, SABBADIN Franco, ORTOLANI Sergio, BIANCHINI Antonio..... 213 563
Kinematic structure of planetary nebulae - IV. Nature of the condensations in NGC 7009, REAY N.K., ATHERTON P.D..... 215 233
Charge exchange of O^{3+} with H in planetary nebulae, CLEGG R.E.S., WALSH J.R... 215 323
Radio observations of the young planetary nebula NGC 6302, RODRIGUEZ L.F., GARCÍA-BARRETO J.A., CANTÓ J., MORENO M.A., TORRES-PEIMBERT S., COSTERO R., SERRANO A., MORAN J.M., GARAY G..... 215 353
The structure of NGC 3587, the Owl nebula, SABBADIN Franco, BIANCHINI Antonio, ORTOLANI Sergio, STRAFELLA Francesco 217 539

NEBULAE - REFLECTION

A polarization study of the cometary nebula Parsamyan 21, DRAPER P.W., WARREN-SMITH R.F., SCARROTT S.M..... 212 1P
The source of illumination of the bipolar nebula near NGC 7129, DRAPER P.W., WARREN-SMITH R.F., SCARROTT S.M..... 212 5P
The morphology of NGC 6334 IRS V-1, SIMON THEODORE, DYCK H.M., WOLSTENCROFT RAMON D., JOYCE RICHARD R., JOHNSON PAUL E., McLEAN IAN S..... 212 21P
Optical polarization in the bipolar nebula NGC 6302, KING D.J., SCARROTT S.M., SHIRT J.V..... 213 11P
Speckle observations of the central source in the bipolar nebula NGC 2346, MEABURN J., WALSH J.R., MORGAN B.L., HEBDEN J.C., VINE H., STANDLEY C..... 213 35P
Evidence for discs and jets associated with R and T Cr A, WARD-THOMPSON D., WARREN-SMITH R.F., SCARROTT S.M., WOLSTENCROFT R.D..... 215 537
Polarimetric evidence against a collimated outflow in the Horsehead Nebula, WARREN-SMITH R.F., GLEDHILL T.M., SCARROTT S.M..... 215 75P
Illumination of reflection nebulosity in the L1551 dark cloud by the infrared sources IRS5 and L1551NE, DRAPER P.W., WARREN-SMITH R. F., SCARROTT S.M. 216 7P
Faint structures in the NGC 2261-HH39 region, WALSH J.R., MALIN D.F. 217 31

NEUTRON STARS
On the astronomical nature of the sources of gamma-ray bursts, SHKLOVSKII I.S., MITROFANOV I.G..... 212 545
Thermal structure of magnetized neutron-star envelopes, HERNQUIST Lars..... 213 313
Electrosphere of an aligned magnetized neutron star, KRAUSE-POLSTORFF J., MICHEL F.C..... 213 43P
Angular distribution and polarization of X-ray-burster radiation (during stationary and flash phases), LAPIDUS I.I., SUNYAEV R.A. 217 291
The axisymmetric pulsar magnetosphere, MESTEL L., ROBERTSON J.A., WANG Y-M., WESTFOLD K.C. 217 443
Thermal regeneration of neutron-star magnetic fields in binary radio and X-ray pulsars? ALAK Ray, KEMBHAVI Ajit 217 753

NOVAE
Dwarf novae in outburst: simultaneous ultraviolet and optical observations of VW Hydri, SCHWARZENBERG-CZERNY A., WARD MARTIN, HANES D.A., JONES D.H.P., PRINGLE J.E., VERBUNT F., WADE R.A..... 212 645
Ultraviolet spectral evolution and heavy element abundances in Nova Coronae Austrinae 1981, WILLIAMS R.E., NEY E.P., SPARKS W.M., STARRFIELD S.G., WYCKOFF S., TRURAN J.W..... 212 753
The old nova GK Per: discovery of the X-ray pulse period, WATSON M.G., KING A.R., OSBORNE J..... 212 917
The recurrent nova U Scorpii in post-outburst quiescence, HANES David A..... 213 443
UBV images of the Z Cha accretion disc in outburst, HORNE Keith, COOK M.C..... 214 307
The chemical composition of the Nova Muscae 1983 ejecta, DE FREITAS PACHECO J.A., CODINA S.J..... 214 481
The eccentric binary model of superhumps, CLARKE C.J., MANTLE V.J., BATH G.T..... 215 149
High-speed photometry of the eclipsing dwarf nova OY Carinae, COOK M.C..... 215 211
High-speed photometry of Z Chamaeleontis covering the 1983 March normal outburst, COOK M.C. 216 219
A superoutburst of the dwarf nova EK Trianguli Australis, HASSALL B.J.M. 216 335
Dwarf novae in outburst: monitoring WX Hydri with IUE, HASSALL B.J.M., PRINGLE J.E., VERBUNT F. 216 353
The late infrared development of Nova Serpentis 1970, MITCHELL R.M., ROBINSON G., HYLAND A.R., NEUGEBAUER G. 216 1057
A model for the outburst of nova RS Ophiuchi in 1985, BODE M.F., KHAN F.D. ... 217 205
CP Puppis and V1500 Cygni, WARNER Brian 217 1P

PHOTOMETRY - NON-STELLAR
JHK photometry of planetary nebulae, WHITELOCK Patricia A..... 213 59
CCD photometry of a cluster of galaxies at a redshift of 0.57, COUCH Warrick J., SHANKS T., PENCE W.D..... 213 215
CCD magnitudes of 3C radio sources, EALES Stephen A..... 213 899
JHKL properties of emission-line galaxies, GLASS I.S., MOORWOOD A.F.M..... 214 429
Infrared photometry of galaxies in the Butcher-Oemler cluster 0024+1654, LILLY S.J., GUNN J.E. 217 551
Observations of Comet Crommelin - I. Morphology and C_2 production rate, RUSSELL K.S., DAWE J.A., BIRKETT C.M., ADAMS D.J., MEADOWS A.J. 217 651
Observations of Comet Crommelin - III. Broad-band photometry in the visible and near-infrared, WILLIAMS I.P., WILLIAMS G.P., VEDI K., EATON N., ZARNECKI J.C., GRIFFITHS W.K. 217 665

PHYSICAL PROCESSES
Gravitational N-body problem and the validity of concepts of the gas model, BETTWIESER ERICH, SUGIMOTO DAIICHIRO..... 212 189
Possible evidence for stochastic acceleration of electrons in solar hard X-ray bursts observed by SMM, BROWN JOHN C., LORAN JON M..... 212 245
Diffusive shock acceleration in modified shocks, BOGDAN T.J., LERCHE I..... 212 413
Wind interactions above accretion discs: a model for broad-line regions and collimated outflow, SMITH M.D, RAINE D.J..... 212 425
Pair production, Comptonization and dynamics in astrophysical plasmas, GUILBERT P.W., STEPNEY SUSAN..... 212 523
Soft gamma-ray production in active galactic nuclei, SIKORA MAREK, ZBYSZEWSKA MAGDA..... 212 553
A model for SNR evolution in a cloudy medium and its application to N49,

SHULL Jr. PETER, DYSON J.E., KAHN F.D., WEST KYM A..... 212 799
Sticking coefficients for atoms and molecules at the surfaces of interstellar dust grains, LEITCH-DEVLIN M.A., WILLIAMS D.A..... 213 295
Thermal structure of magnetized neutron-star envelopes, HERNQUIST Lars..... 213 313
Fits for photoionization cross-sections, BUTLER K., MENDOZA C., ZEIPPEN C.J... 213 345
Episodic accretion events on to a white dwarf, PRIALNIK Dina , LIVIO Mario.... 213 407
A gas model for multicomponent star clusters: method and comparison with Fokker-Planck theory, BETTWIESER Erich, INAGAKI Shogo..... 213 473
A hierarchical explosion scheme for the origin of cosmological structure, CARR B.J., IKEUCHI S..... 213 497
Shock formation of the broad emission-line regions in QSOs and active galactic nuclei, PERRY J.J., DYSON J.E..... 213 665
Constraints on decaying particles from Virgo infall, EFSTATHIOU G..... 213 29P
Electrosphere of an aligned magnetized neutron star, KRAUSE-POLSTORFF J., MICHEL F.C..... 213 43P
Mechanisms for biased galaxy formation. REES Martin J..... 213 75P
Self-similar condensation of spherically symmetric self-gravitating isothermal gas clouds, WHITWORTH Ant, SUMMERS Danny..... 214 1
Hotspots in radio galaxies: a comparison with hydrodynamic simulations, SMITH Michael D., NORMAN Michael L., WINKLER Karl-Heinz A., SMARR Larry..... 214 67
Recent star formation in interacting galaxies - II. Super starbursts in merging galaxies, JOSEPH R.D., WRIGHT G.S..... 214 87
Reheating of the intergalactic medium at z>10, COUCHMAN H.M.P..... 214 137
On hydrodynamics of astrophysical jets - I. Basics equations, NOBILI L., CALVANI M., TUROLLA R..... 214 161
Jets with entrained clouds - I. Hydrodynamic simulations and magnetic field structure, COLEMAN C.S., BICKNELL G.V..... 214 337
A simple model for binary star evolution, WHYTE Charles A., EGGLETON Peter P..... 214 357
Cloud fragmentation and stellar masses, LARSON Richard B..... 214 379
The interaction between beams and their cocoons, HUGHES P.A., ALLEN A.J..... 214 399
Slow pulsar scintillation and the spectrum of interstellar electron density fluctuations, GOODMAN Jeremy, NARAYAN Ramesh..... 214 519
The polarization properties of magnetic accretion columns - III. A grid of uniform temperature and shock front models, WICKRAMASINGHE D.T., MEGGITT S.M.A..... 214 605
A mechanism for subpulse drift in pulsars, ALLEN Michelle C..... 215 111
Interstellar cloud collisions, LATTANZIO J.C., MONAGHAN J.J., PONGRACIC H., SCHWARZ M.P..... 215 125
The eccentric binary model of superhumps, CLARKE C.J., MANTLE V.J., BATH G.T..... 215 149
Cosmic rays and the Parker instability, NELSON A.H..... 215 161
Charge exchange of $O3^+$ with H in planetary nebulae, CLEGG R.E.S., WALSH J.R..... 215 323
Momentum-dependent diffusive particle acceleration in modified shock fronts, WEBB G.M., BOGDAN T.J., LEE M.A., LERCHE I..... 215 341
Ultra-relativistic bulk motion and radio flux variability of Active Galactic Nuclei, SINGAL Ashok K., GOPAL-KRISHNA..... 215 383
Evolution of multicomponent stellar systems, BETTWIESER Erich..... 215 499
Gravitational instability of scalar fields and formation of primordial black holes, KHLOPOV M. Yu., MALOMED B.A., ZELDOVICH Ya.B..... 215 575
Limits on the monopole mass obtained from the monopolonium lifetime, STEIN-SCHABES Jaime..... 215 659
On the stability and evolution of relativistic radiation tori: equations and speculations, BLANDFORD R.D., JAROSZYŃSKI M., KUMAR S..... 215 667
Pulsar electrodynamics: the back reaction of the motion of charged particles, DA COSTA A.A., KAHN F.D..... 215 701
Deuterium abundance and Population III remnants, RAMADURAI S., REES M.J..... 215 53P
A theoretical model of the M87 jet, FALLE S.A.E.G., WILSON M.J. 216 79
An interpretation of the mass and velocity spectrum of interstellar H I clouds, CLIFFORD Peter 216 93
Frequency-dependent polarization in blazars, BJÖRNSSON Claes-Ingvar 216 241
Non-adiabatic radiating collapse, SANTOS N.O. 216 403
Density functional calculations of the ground-state energies of atoms and infinite linear molecules in very strong magnetic fields, JONES P.B. 216 503
Theoretical studies of interstellar molecular shocks - I. General formulation and effects of the ion-molecule chemistry, FLOWER D.R., PINEAU DES FORETS G.,

HARTQUIST T.W. 216 775
The influence of thermal plasma on synchrotron radiation, CAWTHORNE T.V. 216 795
Magnetic monopoles in anistropic magnetc cosmologies, STEIN-SCHABES Jaime A. . 216 809
A numerical method for three-dimensional simulations of collapsing, isothermal, magnetic gas clouds, PHILLIPS G.J., MONAGHAN J.J. 216 883
A new shear instability in rotating, self-gravitating, perfect fluids, Eugene BALBINSKI 216 897
Steady jets, WILSON M.J., FALLE S.A.E.G. 216 971
Collapse of a radiating star, DE OLIVEIRA A.K.G., SANTOS N.O., KOLASSIS C.A. 216 1001
Hydrodynamic calculations of axisymmetric accretion flow, SHIMA Eiji, MATSUDA Takuya, TAKEDA Hidenori, SAWADA Keisuke 217 367
On the narrowness of transition fronts in accretion discs, PAPALOIZOU J.C.B., PRINGLE J.E. 217 387
Time-dependent sticking coefficients and mantle growth on interstellar grains, JONES A.P., WILLIAMS D.A. 217 413
The axisymmetric pulsar magnetosphere, MESTEL L., ROBERTSON J.A., WANG Y-M., WESTFOLD K.C. 217 443
Chemical modelling of molecular sources - IV. Time-dependent chemistry of dark clouds, MILLAR T.J., NEJAD L.A.M. 217 507
The oblique rotator, GALEA E.R., WOOD W.P. 217 633
The polarization of fluorescence in the vibration-rotation bands of molecular hydrogen, WEBSTER Adrian 217 761
A radiative ionization and thermal equilibrium model for the wind from P Cygni DREW J.E. 217 867

PLANETS

Collisions in the Solar System - I. Impacts of the Apollo-Amor-Aten asteroids upon the terrestrial planets, STEEL DUNCAN I., BAGGALEY W.J. 212 817
Infrared observations of the extinct cometary candidate minor planet (3200) 1983TB, GREEN S.F., MEADOWS A.J., DAVIES J.K. 214 29P
Collisions in the Solar System - II. Asteroid impacts upon Mars, STEEL Duncan I. 215 369
The hierarchical stability of satellite systems, DONNISON J.R., WILLIAMS I.P. 215 567
Orbital stability during the early stages of planetary formation, DONNISON J.R., WILLIAMS I.P. 216 521
Early thermal conditions and internal constitutions of the icy satellites, COLE G.H.A., HERNIMAN J. 216 735

POLARIZATION OF STARLIGHT

Polarization measurements of the Bok globule B361, WILLIAMS I.P., VEDI K., GRIFFITHS W.K., BHATT H.C., KULKARNI P.V., ASHOK N.M., WALLIS R.E. 212 181
Narrow-band polarization measurements of late-type stars, CLARKE D., BROOKS A. 212 211
Simultaneous linear and circular polarimetry of EF Eri, CROPPER MARK 212 709
A polarization study of the cometary nebula Parsamyan 21, DRAPER P.W., WARREN-SMITH R.F., SCARROTT S.M. 212 1P
The source of illumination of the bipolar nebula near NGC 7129, DRAPER P.W., WARREN-SMITH R.F., SCARROTT S.M. 212 5P
Optical polarization in the bipolar nebula NGC 6302, KING D.J., SCARROTT S.M., SHIRT J.V. 213 11P
Polarimetry, photometry and spectroscopy of the intermediate polar V1233 Sgr, WATTS D.J., GILES A.B., GREENHILL J.G., HILL K., BAILEY J. 215 83
Cosmic rays and the Parker instability, NELSON A.H. 215 161
An optical and near-infrared study of the AM Herculis-type binary CW 1103+254, BAILEY Jeremy, WATTS D.J., SHERRINGTON M.R., AXON D.J., GILES A.B., HANES D.A., HEATHCOTE S.R., HOUGH J.H., HUGHES S., JAMESON R.F., McLEAN I. 215 179
Polarization measurements of stars in the region of Bok globule B5, JOSHI U.C., KULKARNI P.V., BHATT H.C., KULSHRESTHA A.K., DESHPANDE M.R. 215 275
Evidence for discs and jets associated with R and T Cr A, WARD-THOMPSON D., WARREN-SMITH R.F., SCARROTT S.M., WOLSTENCROFT R.D. 215 537
Infrared spectropolarimetric observations of BNKL: the grain alignment mechanism, AITKEN D.K., BAILEY J.A., ROCHE P.F., HOUGH J.M. 215 815
Polarimetric evidence against a collimated outflow in the Horsehead Nebula, WARREN-SMITH R.F., GLEDHILL T.M., SCARROTT S.M. 215 75P

Frequency-dependent polarization in blazars, BJÖRNSSON Claes-Ingvar 216 241
An analysis of the AM Her-type variables CW 1103+254 and E 1405-451, WICKRAMASINGHE D.T., MEGGITT S.M.A. 216 857
Illumination of reflection nebulosity in the L1551 dark cloud by the infrared sources IRS5 and L1551NE, DRAPER P.W., WARREN-SMITH R. F., SCARROTT S.M. 216 7P
The polarization of fluorescence in the vibration-rotation bands of molecular hydrogen, WEBSTER Adrian 217 761

PULSARS
The Galactic population and birthrate of X-ray pulsars, BLAIR D.G., CANDY B.N. 212 219
Unpulsed radio emission from pulsars, PERRY T.E., LYNE A.G..... 212 489
A search for short-period pulsars, MANCHESTER R.N., D'AMICO N., TUOHY I.R..... 212 975
Quasi-periodic scintillation patterns of the pulsars PSR 1133+16 and PSR 1642-03, HEWISH A., WOLSZCZAN A., GRAHAM D.A..... 213 167
Low-frequency variability of pulsars, BLANDFORD Roger, NARAYAN Ramesh..... 213 591
The galactic population of pulsars, LYNE A.G., MANCHESTER R.N., TAYLOR J.H.... 213 613
An upper limit for the solar acceleration, THORNBURG Jonathan..... 213 27P
Electrosphere of an aligned magnetized neutron star, KRAUSE-POLSTORFF J., MICHEL F.C..... 213 43P
Frequency drift in pulsar scintillation, SMITH F.G., WRIGHT N.C..... 214 97
Slow pulsar scintillation and the spectrum of interstellar electron density fluctuations, GOODMAN Jeremy, NARAYAN Ramesh..... 214 519
Changing parameters along the path to the Vela pulsar, HAMILTON P.A., HALL P.J., COSTA M.E..... 214 5P
Dependence of pulsewidth on the age of pulsars - a comment on Candy and Blair's analysis, KRISHNAMOHAN S..... 214 15P
The drifting subpulses of PSR 0148-06, BIGGS J.D., HAMILTON P.A., McCULLOCH P.M., MANCHESTER R.N..... 214 47P
A mechanism for subpulse drift in pulsars, ALLEN Michelle C..... 215 111
A study of PSR 0826-34 - a remarkable pulsar, BIGGS J.D., McCULLOCH P.M., HAMILTON P.A., MANCHESTER R.N., LYNE A.G..... 215 281
Pulsar electrodynamics: the back reaction of the motion of charged particles, DA COSTA A.A., KAHN F.D..... 215 701
Density functional calculations of the ground-state energies of atoms and infinite linear molecules in very strong magnetic fields, JONES P.B. 216 503
Influence of a stochastic background of gravitational waves on the timing of pulsars, MASHHOON Bahram. 217 265
The axisymmetric pulsar magnetosphere, MESTEL L., ROBERTSON J.A., WANG Y-M., WESTFOLD K.C. 217 443
Thermal regeneration of neutron-star magnetic fields in binary radio and X-ray pulsars? ALAK Ray, KEMBHAVI Ajit 217 753

QUASARS
Wind interactions above accretion discs: a model for broad-line regions and collimated outflow, SMITH M.D, RAINE D.J..... 212 425
Molecular hydrogen in the z=2.811 absorbing material toward the quasar PKS 0528-250, LEVSHAKOV S.A., VARSHALOVICH D.A..... 212 517
Interplanetary scintillation observations of 57 flat-spectrum sources at 327 MHz, VIJAYANARASIMHA USHA, ANANTHAKRISHNAN S., SWARUP G..... 212 601
Infrared study and classification of optically faint steep-spectrum radio sources, WALSH D., LEBOFSKY M.J., RIEKE G.H., SHONE D., ELSTON R..... 212 631
The optical luminosity function of Seyfert 1 nuclei, FU-ZHEN CHENG, DANESE L., DE ZOTTI G., FRANCESCHINI A..... 212 857
Magnetic fluxes across black holes, BICAK JIRI, JANIS VACLAV..... 212 899
The close QSO pair Q1548+114A, B, SHAVER P.A., ROBERTSON J.G..... 212 15P
Relativistic beaming and the optical magnitudes of QSOs, BROWNE I.W.A., WRIGHT Alan E..... 213 97
Redshifts of radio sources in the 1-Jy sample, ALLINGTON-SMITH J.R., LILLY S.J., LONGAIR M.S..... 213 243
Millimetre observations of optically selected quasars, ROBSON E.I., GEAR W.K., SMITH M.G., ADE P.A.R., NOLT I.G..... 213 355
Maximum cosmic redshift of quasars at $Z > 3$, SORRELL Wilfred H..... 213 389
Spectroscopy of quasar candidates from searches of UK Schmidt Telescope objective prism plates, SAVAGE A., CLOWES R.G., CANNON R.D., CHEUNG K., SMITH M.G., BOKSENBERG A., WALL J.V..... 213 485
Shock formation of the broad emission-line regions in QSOs and active galactic

nuclei, PERRY J.J., DYSON J.E..... 213 665
8-13 μm spectrophotometry of galaxies - IV. Six more Seyferts and 3C 345, AITKEN D.K., ROCHE P.F..... 213 777
CCD magnitudes of 3C radio sources, EALES Stephen A..... 213 899
On the statistics of quasar alignments, EDMUNDS M.G., GEORGE G.H..... 213 905
Automated analysis of objective-prism spectra - I. Quasar detection, HEWETT P.C., IRWIN M.J., BUNCLARK P., BRIDGELAND M.T., KIBBLEWHITE E.J., HE X.T., SMITH M.G..... 213 971
Evidence for underlying galaxies in a complete sample of variable quasars, HAWKINS M.R.S., WOLTJER L..... 214 241
A gravitational origin for the broad emission line profiles in quasars and Seyfert galaxies: time variation, CARROLL T.J..... 214 321
The gravitational lens effect and the surface density of quasars near foreground galaxies, ZUIDERWIJK E.J..... 215 639
Structure of PKS 1148-001, VENUGOPAL V.R., ANANTHAKRISHNAN S., SWARUP G., PYNZAR A.V., UDALTSOV V.A..... 215 685
Quasar discs - I. The Baldwin effect, NETZER Hagai 216 63
Bright extragalactic radio sources at 2.7 GHz - III. The all-sky catalogue, WALL J.V., PEACOCK J.A. 216 173
Polarization properties of radio cores in galaxies and quasars, SAIKIA D.J., SWARUP G., KODALI P.D. 216 385
UV and optical observations of PG 1351+64, a bright Seyfert galaxy or a low-luminosity QSO, TREVES A., DREW J., FALOMO R., MARASCHI L., TANZI E.G., WILSON R. 216 529
Comparison of the quasar populations in two fields, HAWKINS M.R.S. 216 589
A spectroscopic survey of faint ultraviolet excess stellar objects, BOYLE B.J., FONG R., SHANKS T., CLOWES R.G. 216 623
MERLIN radio observations of the quasar 3C 273, FOLEY A.R., DAVIS R.J. 216 679
Do some QSO low-ionization absorption systems arise in galactic discs? BALDWIN J.A., PHILLIPS M.M., CARSWELL R.F. 216 41P
The high-redshift evolution of radio galaxies and quasars, PEACOCK J.A. 217 601

RADIATIVE TRANSFER

Numerical solution of the radiative transfer equation in a magnetized medium, NAGENDRA K.N., PERAIAH A..... 214 203
Far-infrared emission from dust clouds with two embedded sources, GHOSH S.K., TANDON S.N..... 215 315
Large-velocity-gradient modelling of Sagittarius B2, BROWN R.D., CRAGG D.M.... 215 395
Non-adiabatic radiating collapse, SANTOS N.O. 216 403
The influence of thermal plasma on synchrotron radiation, CAWTHORNE T.V. 216 795
Collapse of a radiating star, DE OLIVEIRA A.K.G., SANTOS N.O., KOLASSIS C.A..... 216 1001

RADIOACTIVE TRANSFER

A semi-classical description of radiation transport in many-level astrophysical masers: competitive gain in OH hyperfine transitions, FIELD D.. 217 1
A radiative ionization and thermal equilibrium model for the wind from P Cygni DREW J.E. 217 867

RADIO ASTRONOMY

The circumstellar envelopes around OH/IR stars, DIAMOND P.J., NORRIS R.P., ROWLAND P.R., BOOTH R.S., NYMAN L-A..... 212 1
Structure of the Crab Nebula: intensity and polarization at 20cm, VELUSAMY T.. 212 359
Radio continuum observation of NGC 4631 at 327 MHz, SUKUMAR S., VELUSAMY T.... 212 367
The unusual OH envelope of U Orionis, CHAPMAN JESSICA M., COHEN R.J..... 212 375
The phase power spectrum of the solar wind measured by long-baseline interferometry at 81.5 MHz, REES W.G., DUFFETT-SMITH P.J..... 212 463
Unpulsed radio emission from pulsars, PERRY T.E., LYNE A.G..... 212 489
Interplanetary scintillation observations of 57 flat-spectrum sources at 327 MHz, VIJAYANARASIMHA USHA, ANANTHAKRISHNAN S., SWARUP G..... 212 601
Infrared study and classification of optically faint steep-spectrum radio sources, WALSH D., LEBOFSKY M.J., RIEKE G.H., SHONE D., ELSTON R..... 212 631
Erratum: Flux density and structure variations in SS 433, SPENCER R.E..... 212 751
A radio and optical study of the radio galaxy PKS 0511-48, SMITH R.M., ROBERTSON J.G..... 212 809
A search for short-period pulsars, MANCHESTER R.N., D'AMICO N., TUOHY I.R..... 212 975

A recurrence of the Cassiopeia A flux anomaly, WALCZOWSKI L.T., SMITH K.L..... 212 27P
An optical search for the intergalactic HI cloud in Leo, KIBBLEWHITE E.J., CAWSON M.G.M., DISNEY M.J., PHILLIPPS S..... 213 111
Quasi-periodic scintillation patterns of the pulsars PSR 1133+16 and PSR 1642-03, HEWISH A., WOLSZCZAN A., GRAHAM D.A..... 213 167
Redshifts of radio sources in the 1-Jy sample, ALLINGTON-SMITH J.R., LILLY S.J., LONGAIR M.S..... 213 243
Millimetre observations of optically selected quasars, ROBSON E.I., GEAR W.K., SMITH M.G., ADE P.A.R., NOLT I.G..... 213 355
Low-frequency variability of pulsars, BLANDFORD Roger, NARAYAN Ramesh..... 213 591
OH masers associated with compact H II regions in the G45.1 + 0.1 complex, BAART E.E., COHEN R.J..... 213 641
OSRT observations of the Sco X-1 region at 327 MHz, VELUSAMY T., PRAMESH RAO A., SUKUMAR S..... 213 735
A radio study of 3C 390.3 - a precessing jet? ALEXANDER Paul..... 213 743
Long-chain hydrocarbon molecules in the interstellar medium: search for 1-cyanobut-3-ene-1-yne, CH2=CH-C≡C-C≡N, KROTO H.W., McNAUGHTON D., LITTLE L.T., MATTHEWS N..... 213 753
MERLIN observations of OH masers around the active galactic nucleus IC 4553, NORRIS R.P., BAAN W.A., HASCHICK A.D., DIAMOND P.J., BOOTH R.S..... 213 821
CCD magnitudes of 3C radio sources, EALES Stephen A..... 213 899
The variability and radio structure of 3C 159, BROWNE I.W.A., MANTOVANI F., MUXLOW T.W.B., PADRIELLI L., ROMNEY J.D..... 213 945
CCD observations of a rich distant cluster of galaxies (1046+35) containing a classical double radio source, EALES Stephen A..... 214 27
Radio and optical observations of the radio galaxy 0831 + 557, WHYBORN N.D., BROWNE I.W.A., WILKINSON P.N., PORCAS R.W., SPINRAD H..... 214 55
Hotspots in radio galaxies: a comparison with hydrodynamic simulations, SMITH Michael D., NORMAN Michael L., WINKLER Karl-Heinz A., SMARR Larry..... 214 67
Frequency drift in pulsar scintillation, SMITH F.G., WRIGHT N.C..... 214 97
Non-stellar radiation in radio galaxies at 3.5 μm, LILLY S.J., LONGAIR M.S., MILLER L..... 214 109
CS 5-4 observations of OMC1: evidence for external heating of the quiescent gas, PADMAN R., SCOTT P.F., VIZARD D.R., WEBSTER A.S..... 214 251
Jets with entrained clouds - I. Hydrodynamic simulations and magnetic field structure, COLEMAN C.S., BICKNELL G.V..... 214 337
The interaction between beams and their cocoons, HUGHES P.A., ALLEN A.J..... 214 399
Radio Seyferts and the forbidden-line region, PEDLAR A., DYSON J.E., UNGER S.W..... 214 463
Slow pulsar scintillation and the spectrum of interstellar electron density fluctuations, GOODMAN Jeremy, NARAYAN Ramesh..... 214 519
The vertical structure of galactic spiral arms: the velocity asymmetries in HI observations, FEITZINGER J.V., SPICKER J..... 214 539
Changing parameters along the path to the Vela pulsar, HAMILTON P.A., HALL P.J., COSTA M.E..... 214 5P
Dependence of pulsewidth on the age of pulsars - a comment on Candy and Blair's analysis, KRISHNAMOHAN S..... 214 15P
Cosmological evolution of linear sizes of radio galaxies, KAPAHI Vijay K..... 214 19P
The drifting subpulses of PSR 0148-06, BIGGS J.D., HAMILTON P.A., McCULLOCH P.M., MANCHESTER R.N..... 214 47P
Infrared observations of 1-jansky radio source identifications and empty fields, LILLY S.J., LONGAIR M.S., ALLINGTON-SMITH J.R..... 215 37
OH observations in the direction of H_2O masers in the Large Magellanic Cloud, GARDNER F.F., WHITEOAK J.B..... 215 103
Westerbork 6-cm observations of H_2CO: absorption in the direction of W49A, GOSS W.M., TILANUS R.P.J..... 215 197
Radio continuum observations of four edge-on spiral galaxies, HARNETT J.I., REYNOLDS J.E..... 215 247
A study of PSR 0826-34 - a remarkable pulsar, BIGGS J.D., McCULLOCH P.M., HAMILTON P.A., MANCHESTER R.N., LYNE A.G..... 215 281
Radio observations of the young planetary nebula NGC 6302, RODRIGUEZ L.F., GARCIA-BARRETO J.A., CANTÓ J., MORENO M.A., TORRES-PEIMBERT S., COSTERO R., SERRANO A., MORAN J.M., GARAY G..... 215 353
Ultra-relativistic bulk motion and radio flux variability of Active Galactic Nuclei, SINGAL Ashok K., GOPAL-KRISHNA..... 215 383
Accretion noise in Active Galactic Nuclei, CRUISE A.M., DODDS P.M..... 215 417
The radio halo and active galaxies in the Coma cluster, CORDEY Ralph A..... 215 437

An evolution model for compact double radio sources, CARVALHO Joel C..... 215 463
Vertical motions in the galaxies NGC 3938 and NGC 628, FOSTER P.A., NELSON A.H..... 215 555
Structure of PKS 1148-001, VENUGOPAL V.R., ANANTHAKRISHNAN S., SWARUP G., PYNZAR A.V., UDALTSOV V.A..... 215 685
The morphologies and magnetic field structures of six 3CR double radio galaxies, MILLER L..... 215 773
The gaseous environments of double radio galaxies, MILLER L., LONGAIR M.S., FABBIANO G., TRINCHIERI G., ELVIS M..... 215 799
The Sgr A East H II complex at $l=-0°.02, b=-0°.07$, GOSS W.M., SCHWARZ U.J., VAN GORKOM J.H., EKERS R.D..... 215 69P
An interpretation of the mass and velocity spectrum of interstellar H I clouds, CLIFFORD Peter 216 93
IRAS observations of MKN 501 with quasi-simultaneous observations at radio, near-infrared and ultraviolet wavelengths, SEMBAY S., COE M.J., CLEMENT R, DEAN A.J., HANSON C.G., FERRARI-TONIOLO M., PERSI P., SPINOGLIO L., BASSANI L., DI COCCO G., MACDOUGALL J.R., ELSMORE B. 216 121
Bright extragalactic radio sources at 2.7 GHz - III. The all-sky catalogue, WALL J.V., PEACOCK J.A. 216 173
The velocity fields and radio structures of the active galaxies NGC 5643 and NGC 7582, MORRIS Simon, WARD Martin, WHITTLE Mark, WILSON A.S., TAYLOR K. ... 216 193
Polarization properties of radio cores in galaxies and quasars, SAIKIA D.J., SWARUP G., KODALI P.D. 216 385
Six mass-loss stars at 843 MHz, JONES P.A. 216 613
The distances and associated properties of faint radio sources, PERRYMAN M.A.C., DOWNES A.J.B., LILLY S.J. 216 641
MERLIN radio observations of the quasar 3C 273, FOLEY A.R., DAVIS R.J. 216 679
Observations of compact radio sources in the Galactic plane, GREEN D.A. 216 691
The nature of the megamaser galaxy IC 4553 (Arp 220), NORRIS R.P..... 216 701
Submillimetre line and continuum observations of the S255 molecular cloud, RICHARDSON K.J., WHITE Glenn J., GEE G., GRIFFIN M.J., CUNNINGHAM C.T., ADE P.A.R., AVERY L.W. 216 713
A new galactic supernova remnant, G312.4-0.4, CASWELL J.L., BARNES Peter J. .. 216 753
The influence of thermal plasma on synchrotron radiation, CAWTHORNE T.V. 216 795
An X-ray, optical and radio study of PKS 0745-191: a massive cooling flow, FABIAN A.C., ARNAUD K.A., NULSEN P.E.J., WATSON M.G., STEWART G.C., MCHARDY I., SMITH A., COOKE B., ELVIS M., MUSHOTZKY R.F. 216 923
The expansion of Tycho's supernova remnant as determined by a new algorithm for comparing data, TAN Sze M., GULL Stephen F. 216 949
Steady jets, WILSON M.J., FALLE S.A.E.G. 216 971
Interferometric observations of the mainline OH maser emission from OH127.8-0.0, DIAMOND P.J., NORRIS R.P., BOOTH R.S. 216 1P
Hot and cold spots in the microwave background radiation, SAZHIN M.V. 216 25P
A search for H_2CO emission towards OH masers, FORSTER J.R., GOSS W.M., GARDNER F.F., STEWART R.T. 216 35P
An OH maser outburst in Cepheus A, COHEN R.J., BREBNER G.C. 216 51P
A semi-classical description of radiation transport in many-level astrophysical masers: competitive gain in OH hyperfine transitions, FIELD D.. 217 1
A sample of 6C radio sources selected at the peak of the source counts - I. A search for extended sources and multifrequency radio observations, EALES S.A. 217 149
A sample of 6C sources selected at the peak of the source counts - II. Optical identifications, EALES S.A. 217 167
A sample of 6C sources selected at the peak of the source counts - III. An investigation of the variation of the sizes of radio sources with cosmic epoch, EALES S.A. 217 179
A model for the outburst of nova RS Ophiuchi in 1985, BODE M.F., KHAN F.D. ... 217 205
The rotating interstellar disc in G35.2-0.74, LITTLE L.T., DENT W.R.F., HEATON B., DAVIES S.R., WHITE G.J. 217 227
Thermal and non-thermal emission from NGC 1275 (3C 84), GEAR W.K., GEE G., ROBSON E.I., NOLT I.G. 217 281
Ammonia observations of G34.3+0.1: A 'bipolar' HII region? HEATON B.D., MATTHEWS N., LITTLE L.T., DENT W.R.F. 217 485
The high-redshift evolution of radio galaxies and quasars, PEACOCK J.A. 217 601
The 6C survey of radio sources - I. Declination zone $\delta>+80°$, BALDWIN J.E., BOYSEN R.C., HALES S.E.G., JENNINGS J.E., WAGGETT P.C., WARNER P.J., WILSON D.M.A. 217 717

A search for neutral hydrogen in red elliptical galaxies, APPLETON P.N., SPARKS W.B., PEDLAR A., WILKINSON A. 217 779

RELATIVITY

Tidal squeezing of stars by Schwarzschild black holes, LUMINET JEAN-PIERRE, MARCK JEAN-ALAIN..... 212 57
Magnetic fluxes across black holes, BICAK JIRI, JANIS VACLAV..... 212 899
Relativistic beaming and the optical magnitudes of QSOs, BROWNE I.W.A., WRIGHT Alan E..... 213 97
Twisted accretion discs: the Bardeen-Petterson effect, KUMAR S., PRINGLE J.E.. 213 435
The accuracy of the quadrupole approximation for the gravitational radiation from pulsating stars, BALBINSKI Eugene, DETWEILER Steven, LINDBLOM Lee, SCHUTZ Bernard F..... 213 553
Newtonian N-body calculations of the advance of Mercury's perihelion, NARLIKAR J.V., RANA N.C..... 213 657
On hydrodynamics of astrophysical jets - I. Basics equations, NOBILIL L., CALVANI M., TUROLLA R..... 214 161
On the stability and evolution of relativistic radiation tori: equations and speculations, BLANDFORD R.D., JAROSZYŃSKI M., KUMAR S..... 215 667

SOLAR SYSTEM

Collisions in the Solar System - I. Impacts of the Apollo-Amor-Aten asteroids upon the terrestrial planets, STEEL DUNCAN I., BAGGALEY W.J..... 212 817
Newtonian N-body calculations of the advance of Mercury's perihelion, NARLIKAR J.V., RANA N.C..... 213 657
An upper limit for the solar acceleration, THORNBURG Jonathan..... 213 27P
Collisions in the Solar System - II. Asteroid impacts upon Mars, STEEL Duncan I..... 215 369
Orbital stability during the early stages of planetary formation, DONNISON J.R., WILLIAMS I.P. 216 521
Original abundance of asteroids from their present rotational properties, FARINELLA P., PAOLICCHI P., ZAPPALA' V. 216 565
Early thermal conditions and internal constitutions of the icy satellites, COLE G.H.A., HERNIMAN J. 216 735

SOLAR WIND

The phase power spectrum of the solar wind measured by long-baseline interferometry at 81.5 MHz, REES W.G., DUFFETT-SMITH P.J..... 212 463

SPECTROSCOPY

New identifications of Fe XVII spectral lines in solar flares, FELDMAN U. DOSCHEK G.A., SEELY J.F..... 212 41P

SPECTROSCOPY

The narrow line region of active galaxies - I. Nuclear [O III] profiles WHITTLE Mark..... 213 1
Moderately accurate oscillator strengths from NBS intensities - a revision, WARD Lennart..... 213 71
Fits for photoionization cross-sections, BUTLER K., MENDOZA C., ZEIPPEN C.J... 213 345
Population mechanisms for the He^+ n=3 levels determined from measurements of the solar 1640 Å emission, SEELY J.F., FELDMAN U..... 213 417
Spectroscopy of quasar candidates from searches of UK Schmidt Telescope objective prism plates, SAVAGE A., CLOWES R.G., CANNON R.D., CHEUNG K., SMITH M.G., BOKSENBERG A., WALL J.V..... 213 485
Erratum: Collisional excitation of HCN-hyperfine transitions (MN 211, p. 257) MONTEIRO T. 213 495
Oscillator strengths for transitions in N I and the interstellar abundance of nitrogen, HIBBERT A., DUFTON P.L., KEENAN F.P..... 213 721
Rate coefficients for the rotational excitation of CO by ortho- and para-H_2, FLOWER D.R., LAUNAY J.M..... 214 271
Rotational excitation of HCO^+ by collisions with H_2, MONTEIRO T.S..... 214 419
Population ratios for the fine structure ground state of Si II applicable to the interstellar medium, KEENAN F.P., JOHNSON C.T., KINGSTON A.E., DUFTON P.L..... 214 37P
Charge exchange of O^{3+} with H in planetary nebulae, CLEGG R.E.S., WALSH J.R..... 215 323
Collision strength for the [Ne II]line at 12.8 μm, BAYES F.A., SARAPH H.E.,

SEATON M.J. 215 85P
New line identifications in the blue spectra of Hg-Mn stars, GUTHRIE B.N.G. 216 1
Theoretical Stokes profiles for magnetic stars - I. Rotation, line asymmetries and crossover, STIFT Martin J. 217 55
On the possibility of increasing the throughput of astronomical spectrographs by overfilling the dispersing element, DIEGO F., WALKER D.D. 217 347
Design philosophy of the forthcoming echelle spectrographs for the AAT and LPO WALKER D.D., DIEGO F. 217 355
Transition probabilities in CrI, TOZZI G.P., BRUNNER A.J., HUBER M.C.E. 217 423
Collisional broadening of the sodium D lines by atomic hydrogen, SMITH G., MONTEIRO T.S., DICKINSON A.S., LEWIS E.L. 217 679
The polarization of fluorescence in the vibration-rotation bands of molecular hydrogen, WEBSTER Adrian 217 761

STARS
New light on faint stars - VII. Luminosity and mass distributions in two high galactic latitude fields, GILMORE Gerard, REID Neill, HEWETT Paul..... 213 257
New Wolf-Rayet stars in the Large Magellanic Cloud, MORGAN D.H., GOOD A.R. ... 216 459

STARS - ANGULAR DIAMETERS OF
Effective temperatures, angular diameters and radii of Ap stars, SHALLIS M.J., BARUCH J.E.F., BOOTH A.J., SELBY M.J..... 213 307

STARS - ATMOSPHERES OF
Upper limits to coronal line emission from X-ray-detected T Tauris stars LAGO M.T.V.T., PENSTON M.V., JOHNSTONE R.M..... 212 151
The surface gravity of Arcturus from MgH lines, strong metal lines and the ionization equilibrium of iron, BELL R.A., EDVARDSSON B., GUSTAFSSON B..... 212 497
The photometric effect of rotation in the A stars, COLLINS George W. II, SMITH Robert Connon..... 213 519
High spectral resolution observations of the coronal X-ray emission from the RS CVn binary Sigma Corona Borealis, AGRAWAL P.C., MARKERT T.H., RIEGLER G.R.... 213 761
Derivation of atmospheric structure from emission-line fluxes, JORDAN C..... 214 1P
Grids for the determination of effective temperature and surface gravity of B, A and F stars using uvby β photometry, MOON T.T., DWORETSKY M.M. 217 305
Collisional broadening of the sodium D lines by atomic hydrogen, SMITH G., MONTEIRO T.S., DICKINSON A.S., LEWIS E.L. 217 679

STARS - BINARY
The magnetic field of AM Herculis, WICKRAMASINGHE, D.T., MARTIN BRIAN..... 212 353
EXOSAT soft X-ray observations of EX Hydrae, CORDOVA F.A., MASON K.O., KAHN S.M..... 212 447
The emission line profiles of 2A 0311-227, MUKAI KOJI, CHARLES PHILIP..... 212 609
Instability in the red star of semi-detached binary systems, EDWARDS D.A..... 212 623
Photoelectric radial velocities, Paper XII. The orbits of another four spectroscopic binaries in the Clube Selected Areas, GRIFFIN R.F..... 212 663
Simultaneous linear and circular polarimetry of EF Eri, CROPPER MARK..... 212 709
HR 5637: the unveiling of a binary, NOORDANUS BARBARA, COTTRELL, P.L., AKE III THOMAS B..... 212 931
Polarimetry, photometry and spectroscopy of the intermediate polar V1233 Sgr, WATTS D.J., GILES A.B., GREENHILL J.G., HILL K., BAILEY J..... 215 83
The eccentric binary model of superhumps, CLARKE C.J., MANTLE V.J., BATH G.T..... 215 149
An optical and near-infrared study of the AM Herculis-type binary CW 1103+254, BAILEY Jeremy, WATTS D.J., SHERRINGTON M.R., AXON D.J., GILES A.B., HANES D.A., HEATHCOTE S.R., HOUGH J.H., HUGHES S., JAMESON R.F., McLEAN I.... 215 179
High-speed photometry of the eclipsing dwarf nova OY Carinae, COOK M.C..... 215 211
EXOSAT MEDA observations of Cygnus X-3, WILLINGALE R., KING A.R., POUNDS K.A.. 215 295
The maintenance of corotation in the strong polars, CAMPBELL C.G..... 215 509
The distribution of the rotation axes of A-type stars, GUTHRIE B.N.G..... 215 545
The Mg II emission in W UMa-type binaries, RUCINSKI S.M..... 215 615
Absorption dips and the geometry of the AM Herculis systems, KING A.R., WILLIAMS G.A..... 215 1P
The identification of H2311+77 with HD 220140, a probable RS CVn star, PRAVDO S.H., WHITE N.E., GIOMMI P..... 215 11P
Spin-up of the white dwarf in the intermediate polar AO Psc/H2252-035,

VAN AMERONGEN S., KRAAKMAN H., DAMEN E., TJEMKES S., VAN PARADIJS J..... 215 45P
The outcome of accretion on to a fully convective star: expansion or contraction?, PRIALNIK Dina, LIVIO Mario 216 37
High-speed photometry of Z Chamaeleontis covering the 1983 March normal outburst, COOK M.C. 216 219
Speckle interferometry of Hipparcos link stars - II, ARGUE A.N., HEBDEN J.C., MORGAN B.L., STANDLEY C., VINE H.A. 216 447
The light curve of TX Cassiopeiae: some preliminary results about an almost unknown EB-type binary, BREINHORST R.A., KARIMIE M.T. 216 663
An analysis of the AM Her-type variables CW 1103+254 and E 1405-451, WICKRAMASINGHE D.T., MEGGITT S.M.A. 216 857
Apsidal motion and the third body in the system RU Monocerotis, KHALIULLINA A.I., KHALIULLIN Kh. F, MARTYNOV D. Ya. 216 909
Eclipse maps of the accretion disc in RW Trianguli, HORNE Keith, STEINING Rae F..... 216 933
Simultaneous X-ray and optical observations of the X-ray dip source X1755-338, MASON K.O., PARMAR A.N., WHITE N.E. 216 1033
The discovery of low-level iron K line emission from Cyg X-1, BARR P., WHITE N.E., PAGE C.G. 216 65P

STARS - BINARY

The massive near-contact binary system V348 Carinae (HD 90707) in IC 2581, HILDITCH R.W., LLOYD EVANS T..... 213 75
On the tidal evolution of massive X-ray binaries: the tidal evolution time-scales for very long orbital periods, PAPALOIZOU J.C.B., SAVONIJE G.J..... 213 85
Images of accretion discs - I. The eclipse mapping method, HORNE Keith..... 213 129
The dynamical behaviour of SS 433, COLLINS George W. II..... 213 279
OSRT observations of the Sco X-1 region at 327 MHz, VELUSAMY T., PRAMESH RAO A., SUKUMAR S..... 213 735
High spectral resolution observations of the coronal X-ray emission from the RS CVn binary Sigma Corona Borealis, AGRAWAL P.C., MARKERT T.H., RIEGLER G.R.... 213 761
An upper limit for the solar acceleration, THORNBURG Jonathan..... 213 27P
Speckle observations of the central source in the bipolar nebula NGC 2346, MEABURN J., WALSH J.R., MORGAN B.L., HEBDEN J.C., VINE H., STANDLEY C..... 213 35P
EX Hya: the slowest DQ Her star?, JABLONSKI F., BUSKO I.C..... 214 219
UBV images of the Z Cha accretion disc in outburst, HORNE Keith, COOK M.C..... 214 307
A simple model for binary star evolution, WHYTE Charles A., EGGLETON Peter P..... 214 357
A digital technique for the separation of the eclipses of a white dwarf and an accretion disc, WOOD J.H., IRWIN M.J., PRINGLE J.E..... 214 475
The polarization properties of magnetic accretion columns - III. A grid of uniform temperature and shock front models, WICKRAMASINGHE D.T., MEGGITT S.M.A..... 214 605
Angular distribution and polarization of X-ray-burster radiation (during stationary and flash phases), LAPIDUS I.I., SUNYAEV R.A. 217 291
The origin of the infrared light of cataclysmic variable stars, BERRIMAN G., SZKODY P., CAPPS R.W. 217 327
IUE high-resolution observations of Mira B, CASSATELLA A., HOLM A., REIMERS D. AKE T., STICKLAND D.J. 217 589
Thermal regeneration of neutron-star magnetic fields in binary radio and X-ray pulsars? ALAK Ray, KEMBHAVI Ajit 217 753
General properties of W Ursae Majoris systems, MACERONI C., MILANO L., RUSSO G. 217 843
On the amplitude decrease of the β Cephei stars Spica and 16 Lacertae, BALONA L.A. 217 17P
The origin of the magnetic field distribution in accreting white dwarfs, KING A.R. 217 23P

STARS - CHEMICAL COMPOSITION OF

New photometric data for the red giants in the open cluster NGC 5822: membership, chemical composition and physical properties, CLARIÁ J.J., LAPASSET E..... 214 229
The chemical composition of the Nova Muscae 1983 ejecta, DE FREITAS PACHECO J.A., CODINA S.J..... 214 481
Line-strength gradients in NGC 5813, EFSTATHIOU G., GORGAS J..... 215 37P
Deuterium abundance and Population III remnants, RAMADURAI S., REES M.J..... 215 53P

STARS - CHEMICAL COMPOSITION OF

On the nature of the neutron exposure event of U Aquarii, MALANEY R.A. 216 743
An R star in the central bulge of the Galaxy, LLOYD EVANS T. 216 29P

STARS - CLUSTERS OF
Gravitational N-body problem and the validity of concepts of the gas model, BETTWIESER ERICH, SUGIMOTO DAIICHIRO..... 212 189
uvby β photometry of southern clusters - VI.NGC 3766, SHOBBROOK R.R..... 212 591
A period-luminosity relation for Mira variables in globular clusters and its impact on the distance scale, MENZIES J.W., WHITELOCK P.A..... 212 783
A photometric study of the open cluster M39, MOHAN Vijay, SAGAR Ram..... 213 337
On the dynamical evolution of a spheroidal cluster, SOM SUNDER G., KOCHHAR R.K 213 381
A gas model for multicomponent star clusters: method and comparison with Fokker-Planck theory, BETTWIESER Erich, INAGAKI Shogo 213 473
CCD photometry of Galactic clusters containing Cepheid variables - I. Lyngå 6, WALKER Alistair R..... 213 889
CCD photometry of galactic clusters containing Cepheid variables - II. NGC 6067 WALKER Alistair R..... 214 45
New photometric data for the red giants in the open cluster NGC 5822: membership, chemical composition and physical properties, CLARIÁ J.J., LAPASSET E..... 214 229
UBVRI multi-aperture photometry for 71 globular clusters in our own Galaxy, HANES David A., BRODIE Jean P..... 214 491
Shock-heated gas in the I Per OB association, McLACHLAN A., NANDY K..... 215 473
Evolution of multicomponent stellar systems, BETTWIESER Erich..... 215 499
On the interaction between a spherical stellar system and a companion, PALMER P.L., PAPALOIZOU J..... 215 691
Studies of violent star formation in extragalactic systems - I. Population synthesis model for the ionizing clusters of giant H II regions and H II galaxies, MELNICK Jorge, TERLEVICH Roberto, EGGLETON P.P. 216 255
The distance to the LMC from ZAMS fitting to the young cluster NGC 1866, WALKER Alistair R. 217 13P

STARS - FORMATION OF
Disc-like magneto-gravitational equilibria, MESTEL L., RAY T.P..... 212 275
Warmers: the missing link between Starburst and Seyfert galaxies, TERLEVICH Roberto, MELNICK Jorge..... 213 841
Recent star formation in interacting galaxies - II. Super starbursts in merging galaxies, JOSEPH R.D., WRIGHT G.S..... 214 87
Cloud fragmentation and stellar masses, LARSON Richard B..... 214 379
The distribution of the rotation axes of A-type stars, GUTHRIE B.N.G..... 215 545
B335 - a candidate protostar?, GEE Graham, GRIFFIN Matthew J., CUNNINGHAM Charles T., EMERSON J.P., ADE Peter A.R., CAROFF Lawrence J..... 215 15P
Studies of violent star formation in extragalactic systems - I. Population synthesis model for the ionizing clusters of giant H II regions and H II galaxies, MELNICK Jorge, TERLEVICH Roberto, EGGLETON P.P. 216 255
Non-adiabatic radiating collapse, SANTOS N.O. 216 403
A numerical method for three-dimensional simulations of collapsing, isothermal, magnetic gas clouds, PHILLIPS G.J., MONAGHAN J.J. 216 883
Nitrogen and oxygen evolution in dwarf irregular galaxies, MATTEUCCI F., TOSI M. 217 391
Star formation and the surface brightness of spiral galaxies, PHILLIPPS Steven, DISNEY Michael 217 435

STARS - MAGNETIC FIELDS IN
The magnetic field of AM Herculis, WICKRAMASINGHE D.T., MARTIN BRIAN..... 212 353
Simultaneous linear and circular polarimetry of EF Eri, CROPPER MARK..... 212 709
Secular evolution of magnetic cataclysmic variables, KING A.R., FRANK J., RITTER H..... 213 181
Thermal structure of magnetized neutron-star envelopes, HERNQUIST Lars..... 213 313
Time-dependent models of rotating magnetic stars - II. The displaced dipole, MOSS David..... 213 575
Electrosphere of an aligned magnetized neutron star, KRAUSE-POLSTORFF J., MICHEL F.C..... 213 43P
Erratum: Time-dependent models of rotating magnetic stars - II. The displaced dipole, MOSS David (Vol. 213, p. 575)..... 215 159
The maintenance of corotation in the strong polars, CAMPBELL C.G..... 215 509
Spin-up of the white dwarf in the intermediate polar AO Psc/H2252-035, VAN AMERONGEN S., KRAAKMAN H., DAMEN E., TJEMKES S., VAN PARADIJS J..... 215 45P

The adiabatic stability of stars containing magnetic fields - VI. The influence of rotation, PITTS E., TAYLER R.J. 216 139
An analysis of the AM Her-type variables CW 1103+254 and E 1405-451, WICKRAMASINGHE D.T., MEGGITT S.M.A. 216 857
Theoretical Stokes profiles for magnetic stars - I. Rotation, line asymmetries and crossover, STIFT Martin J. 217 55
The axisymmetric pulsar magnetosphere, MESTEL L., ROBERTSON J.A., WANG Y-M., WESTFOLD K.C. 217 443
The oblique rotator, GALEA E.R., WOOD W.P. 217 633
Thermal regeneration of neutron-star magnetic fields in binary radio and X-ray pulsars? ALAK Ray, KEMBHAVI Ajit 217 753
The origin of the magnetic field distribution in accreting white dwarfs, KING A.R. 217 23P

STARS - MASS LOSS FROM
The circumstellar envelopes around OH/IR stars, DIAMOND P.J., NORRIS R.P., ROWLAND P.R., BOOTH R.S., NYMAN L-A..... 212 1
On the evolution of accretion disc flow in cataclysmic variables - III. Outburst properties of constant and uniform-α model discs, LIN D.N.C., PAPALOIZOU JOHN, FAULKNER JOHN..... 212 105
The unusual OH envelope of U Orionis, CHAPMAN JESSICA M., COHEN R.J..... 212 375
Shapes of planetary nebulae, KAHN F.D., WEST KYM A..... 212 837
On the ultraviolet spectrum of AG Peg, PENSTON M.V., ALLEN D.A..... 212 939
A polarization study of the cometary nebula Parsamyan 21, DRAPER P.W., WARREN-SMITH R.F., SCARROTT S.M..... 212 1P
Investigation of a wind model for cataclysmic variable ultraviolet resonance line emission, DREW Janet, VERBUNT Frank..... 213 191
Warmers: the missing link between Starburst and Seyfert galaxies, TERLEVICH Roberto, MELNICK Jorge..... 213 841
The chemical composition of the Nova Muscae 1983 ejecta, DE FREITAS PACHECO J.A., CODINA S.J..... 214 481
Kinematic structure of planetary nebulae - IV. Nature of the condensations in NGC 7009, REAY N.K., ATHERTON P.D..... 215 233
Evidence for hydrogenated amorphous carbon in the Red Rectangle, DULEY W.W.... 215 259
Continuum energy distribution and photometric behaviour of π Aqr, GORAYA P.S.. 215 265
Polarization measurements of stars in the region of Bok globule B5, JOSHI U.C., KULKARNI P.V., BHATT H.C., KULSHRESTHA A.K., DESHPANDE M.R..... 215 275
Evidence for discs and jets associated with R and T Cr A, WARD-THOMPSON D., WARREN-SMITH R.F., SCARROTT S.M., WOLSTENCROFT R.D..... 215 537
Echelle observations of high-velocity lobes projecting from the core of the bipolar nebula MZ-3, MEABURN J., WALSH J.R..... 215 761
B335 - a candidate protostar?, GEE Graham, GRIFFIN Matthew J., CUNNINGHAM Charles T., EMERSON J.P., ADE Peter A.R., CAROFF Lawrence J..... 215 15P
Condensation of dust around the WC7 star HD 192641 (WR 137), WILLIAMS P.M., LONGMORE A.J., VAN DER HUCHT K.A., TALEVERA A., WAMSTEKER W.M., ABBOTT D.C., TELESCO C.M..... 215 23P
The extreme carbon star CRL 3099, FEAST M.W., WHITELOCK P.A., CATCHPOLE R.M., ROBERTS G., CARTER B.S..... 215 63P
Polarimetric evidence against a collimated outflow in the Horsehead Nebula, WARREN-SMITH R.F., GLEDHILL T.M., SCARROTT S.M..... 215 75P
Six mass-loss stars at 843 MHz, JONES P.A. 216 613
The light curve of TX Cassiopeiae: some preliminary results about an almost unknown EB-type binary, BREINHORST R.A., KARIMIE M.T. 216 663
Echelle observations of the complex Hα and [N II] line profiles from the Galactic H II region M17 (NGC 6618), CLAYTON C.A., IVCHENKO V.N., MEABURN J., WALSH J.R..... 216 761
Illumination of reflection nebulosity in the L1551 dark cloud by the infrared sources IRS5 and L1551NE, DRAPER P.W., WARREN-SMITH R. F., SCARROTT S.M. 216 7P
Faint structures in the NGC 2261-HH39 region, WALSH J.R., MALIN D.F. 217 31
Einstein observations of the Rosette nebula and the Mon OB2 association, LEAHY D.A. 217 69
A model for the outburst of nova RS Ophiuchi in 1985, BODE M.F., KHAN F.D. ... 217 205
Near-infrared observations of the bipolar outflow source G35.2N, DENT W.R.F., LITTLE L.T., SATO S., OHISHI M., YAMASHITA T. 217 217
The rotating interstellar disc in G35.2-0.74, LITTLE L.T., DENT W.R.F., HEATON B., DAVIES S.R., WHITE G.J. 217 227
Nitrogen and oxygen evolution in dwarf irregular galaxies, MATTEUCCI F.,

TOSI M. 217 391
Circumstellar material and the light variations of RV Tauri stars,
EVANS Lloyd T. 217 493
The structure of NGC 3587, the Owl nebula, SABBADIN Franco, BIANCHINI Antonio ,
ORTOLANI Sergio, STRAFELLA Francesco 217 539
Photometric and spectroscopic evidence from non-radial pulsation in the
extreme helium star BD-9o 4395, JEFFERY C.S., SKILLEN Ian, HILL P.W.,
KILKENNEY D., MALANEY R.A., MORRISON K. 217 701
IUE observations of RCB stars during extinction minima, EVANS A.,
WHITTET D.C.B., DAVIES J.K., KILKENNY D., BODE M.F. 217 767
A radiative ionization and thermal equilibrium model for the wind from P Cygni
DREW J.E. 217 867

STARS - PHOTOMETRY OF
uvby H β photometry of UV-bright stars, WADE BRIAN R., SMITH LINDSEY F..... 212 77
Polarization measurements of the Bok globule B361, WILLIAMS I.P., VEDI K.,
GRIFFITHS W.K., BHATT H.C., KULKARNI P.V., ASHOK N.M., WALLIS R.E..... 212 181
Dwarf novae in outburst: simultaneous ultraviolet and optical observations of
RU Pegasi and TZ Persei, LA DOUS C., VERBUNT F., SCHOEMBS R., ARGYLE R.W.,
JONES D.H.P, SCHWARZENBERG-CZERNY A., HASSALL B.J.M., PRINGLE J.E., WADE R.A..212 231
A search for low-harmonic pulsation in the Ap star CS Vir, KREIDL TOBIAS J.... 212 337
CCD observations of the RR Lyrae stars in NGC 2210 and the distance to the
Large Magellanic Cloud, WALKER ALISTAIR R..... 212 343
Optical spectroscopy and photometry of the periodic X-ray transient A0538-66
(X0535-668) during an outburst and an OFF state, CORBET R.H.D., MASON K.O.,
CORDOVA F.A., BRANDUARDI-RAYMONT G., PARMAR A.N..... 212 565
uvby β photometry of southern clusters - VI.NGC 3766, SHOBBROOK R.R..... 212 591
The emission line profiles of 2A 0311-227, MUKAI KOJI, CHARLES PHILIP..... 212 609
Dwarf novae in outburst: simultaneous ultraviolet and optical observations
VW Hydri, SCHWARZENBERG-CZERNY A., WARD MARTIN, HANES D.A., JONES D.H.P.,
PRINGLE J.E., VERBUNT F., WADE R.A..... 212 645
A period-luminosity relation for Mira variables in globular clusters and its
impact on the distance scale, MENZIES J.W., WHITELOCK P.A..... 212 783
BVI reddenings of Magellanic Cloud Cepheids, CALDWELL J.A.R., COULSON I.M..... 212 879
Mapping of the beta Cepheid instability strip: the cluster NGC 6231,
BALONA L.A., ENGELBRECHT C.A..... 212 889
HR 5637: the unveiling of a binary, NOORDANUS BARBARA, COTTRELL P.L.,
AKE III THOMAS B..... 212 931
Erratum: The distribution of luminous stars at (1,b) = (245°,0) in Puppis,
REED C., FITZGERALD M.P..... 212 987
Rapid oscillations in CPD - 48° 1577, WARNER BRIAN, O'DONOGHUE DARRAGH,
ALLEN SUE..... 212 9P

STARS - PHOTOMETRY OF
The massive near-contact binary system V348 Carinae (HD 90707) in IC 2581,
HILDITCH R.W., LLOYD EVANS T..... 213 75
New light on faint stars - VII. Lumunosity and mass distributions in two high
galactic latitude fields. GILMORE Gerard, REID Neill, HEWETT Paul..... 213 257
Effective temperatures, angular diameters and radii of Ap stars, SHALLIS M.J.,
BARUCH J.E.F., BOOTH A.J., SELBY M.J..... 213 307
A photometric study of the open cluster M39, MOHAN Vijay, SAGAR Ram..... 213 337
The photometric effect of rotation in the A stars, COLLINS George W. II,
SMITH Robert Connon..... 213 519
CCD photometry of Galactic clusters containing Cepheid variables - I. Lyngå 6,
WALKER Alistair R..... 213 889
Comparisons of the Standard Galaxy Model with observations in two fields,
BAHCALL John N., RATNATUNGA Kavan U..... 213 39P
JHKL observations of IRAS sources - II, WHITELOCK Patricia..... 213 51P
Photometry of the extreme helium star BD + 1° 4381, JEFFERY C.S., MALANEY R.A. 213 61P

STARS - PHOTOMETRY OF
New radial pulsation constants for the β Cephei variables, SHOBBROOK R.R..... 214 33
CCD photometry of galactic clusters containing Cepheid variables -
II. NGC 6067 WALKER Alistair R..... 214 45
Optical photometry and spectroscopy of the flare star Gliese 229 (=HD 42581),
BYRNE P.B., DOYLE J.G., MENZIES J.W..... 214 119
EX Hya: the slowest DQ Her star?, JABLONSKI F., BUSKO I.C..... 214 219

New photometric data for the red giants in the open cluster NGC 5822: membership, chemical composition and physical properties, CLARIÁ J.J., LAPASSET E..... 214 229
UBV images of the Z Cha accretion disc in outburst, HORNE Keith, COOK M.C..... 214 307
Empirical effective temperatures of late O, B, A and early F stars, THEODOSSIOU E..... 214 327
UBVRI multi-aperture photometry for 71 globular clusters in our own Galaxy, HANES David A., BRODIE Jean P..... 214 491
Photometry and frequency analysis of line profile variables, BALONA L.A., ENGELBRECHT C.A..... 214 559
Erratum: BVI reddenings of Magellanic Cloud Cepheids by CALDWELL J.A.R., COULSON I.M..... 214 639
Herbig-Haro objects 1 and 2: another infrared candidate for their energy source, RODRIGUEZ L.F., ROTH M., TAPIA M..... 214 9P
The spectrum of R Cygni during its exceptionally low maximum of 1983, WALLERSTEIN George, HINKLE KENNETH H., DOMINY James F., MATTEI Janet A., SMITH Verne V., OKE J.B..... 215 67
Pulsational mode constraints for the rapidly oscillating Ap star HR 1217, KURTZ D.W., SCHNEIDER Hartmut, WEISS Werner W..... 215 77
Polarimetry, photometry and spectroscopy of the intermediate polar V1233 Sgr, WATTS D.J., GILES A.B., GREENHILL J.G., HILL K., BAILEY J..... 215 83
An optical and near-infrared study of the AM Herculis-type binary CW 1103+254, BAILEY Jeremy, WATTS D.J., SHERRINGTON M.R., AXON D.J., GILES A.B., HANES D.A., HEATHCOTE S.R., HOUGH J.H., HUGHES S., JAMESON R.F., McLEAN I..... 215 179
High-speed photometry of the eclipsing dwarf nova OY Carinae, COOK M.C..... 215 211
Continuum energy distribution and photometric behaviour of π Aqr, GORAYA P.S.. 215 265
Spin-up of the white dwarf in the intermediate polar AO Psc/H2252-035, VAN AMERONGEN S., KRAAKMAN H., DAMEN E., TJEMKES S., VAN PARADIJS J..... 215 45P
The extreme carbon star CRL 3099, FEAST M.W., WHITELOCK P.A., CATCHPOLE R.M., ROBERTS G., CARTER B.S..... 215 63P
On the intrinsic uvby colours of early-type supergiants, KILKENNY David, WHITTET D.C.B. 216 127
The colour-magnitude diagram of the halo of the Small Magellanic Cloud, BRÜCK M.T., CANNON R.D., HAWKINS M.R.S. 216 165
High-speed photometry of Z Chamaeleontis covering the 1983 March normal outburst, COOK M.C. 216 219
A superoutburst of the dwarf nova EK Trianguli Australis, HASSALL B.J.M. 216 335
Dwarf novae in outburst: monitoring WX Hydri with IUE, HASSALL B.J.M., PRINGLE J.E., VERBUNT F. 216 353
Periodicity and pulsational mode of five bright yellow supergiants, ARELLANO FERRO A. 216 571
A spectroscopic survey of faint ultraviolet excess stellar objects BOYLE B.J., FONG R., SHANKS T., CLOWES R.G. 216 623
The light curve of TX Cassiopeiae: some preliminary results about an almost unknown EB-type binary, BREINHORST R.A., KARIMIE M.T. 216 663
The Cepheid HD 144972 and the problematic distance to the open cluster NGC 6067, COULSON Iain M., CALDWELL John A.R. 216 671
VJHK observations of the RR Lyrae star VY Serpentis, LONGMORE A.J., FERNLEY J.A., JAMESON R.F., SHERRINGTON M.R., FRANK J. 216 873
Apsidal motion and the third body in the system RU Monocerotis, KHALIULLINA A.I., KHALIULLIN Kh. F., MARTYNOV D. YA. 216 909
Eclipse maps of the accretion disc in RW Trianguli, HORNE Keith, STEINING Rae F..... 216 933
A frequency analysis of a newly discovered Rapidly Oscillating Ap star, HD 6532, KURTZ D.W., KREIDL Tobias J. 216 987
The Ap star 53 Cam: another 21 Com?, Kreidl Tobias J. 216 1013
Differential photometry of the δ Sct stars HR 151 and HR 239, Kreidl Tobias J. 216 1017
Simultaneous X-ray and optical observations of the X-ray dip source X1755-338, MASON K.O., PARMAR A.N., WHITE N.E. 216 1033
The late infrared development of Nova Serpentis 1970, MITCHELL R.M., ROBINSON G., HYLAND A.R., NEUGEBAUER G. 216 1057
Grids for the determination of effective temperature and surface gravity of B, A and F stars using uvby β photometry, MOON T.T., DWORETSKY M.M. 217 305
Circumstellar material and the light variations of RV Tauri stars, EVANS Lloyd T. 217 493
Ten years of UBV(RI) photometry of E-region stars at Sutherland,

MENZIES J.W., LAING J.D. 217 563
Photometric and spectroscopic evidence from non-radial pulsation in the extreme helium star BD-9° 4395, JEFFERY C.S., SKILLEN Ian, HILL P.W., KILKENNEY D., MALANEY R.A., MORRISON K. 217 701
CP Puppis and V1500 Cygni, WARNER Brian 217 1P
The distance to the LMC from ZAMS fitting to the young cluster NGC 1866, WALKER Alistair R. 217 13P

STARS - ROTATION OF
The rotational velocity of the rapidly oscillating Ap star HD 83368, CARNEY BRUCE W., PETERSON RUTH C..... 212 33P
The photometric effect of rotation in the A stars, COLLINS George W. II, SMITH Robert Connon..... 213 519
The distribution of the rotation axes of A-type stars, GUTHRIE B.N.G..... 215 545
IUE observations of HD 36705, RUCINSKI S.M..... 215 591
The adiabatic stability of stars containing magnetic fields - VI. The influence of rotation, PITTS E., TAYLER R.J. 216 139
A frequency analysis of a newly discovered Rapidly Oscillating Ap star, HD 6532, KURTZ D.W., KREIDL Tobias J. 216 987
Theoretical Stokes profiles for magnetic stars - I. Rotation, line asymmetries and crossover, STIFT Martin J. 217 55
The oblique rotator, GALEA E.R., WOOD W.P. 217 633

STARS - SPECTROSCOPY OF
Upper limits to coronal line emission from X-ray-detected T Tauri stars, LAGO M.T.V.T., PENSTON M.V., JOHNSTONE R.M..... 212 151
Narrow-band polarization measurements of late-type stars, CLARKE D., BROOKS A. 212 211
A deep optical survey of a small region in Aquarius - II. Stellar spectroscopy, MORTON DONALD C., KRUG PETER A., TRITTON K.P..... 212 325
The magnetic field of AM Herculis, WICKRAMASINGHE D.T., MARTIN BRIAN..... 212 353
The surface gravity of Arcturus from MgH lines, strong metal lines and the ionization equilibrium of iron, BELL R.A., EDVARDSSON B., GUSTAFSSON B..... 212 497
Optical spectroscopy and photometry of the periodic X-ray transient A0538-66 (X0535-668) during an outburst and an OFF state, CORBET R.H.D., MASON K.O., CORDOVA F.A., BRANDUARDI-RAYMONT G., PARMAR A.N..... 212 565
Photoelectric radial velocities, Paper XII. The orbits of another four spectroscopic binaries in the Clube Selected Areas, GRIFFIN R.F..... 212 663
Line doubling in the 272-day long-period variable V Cancri, DOMINY JAMES F., WALLERSTEIN GEORGE, SUNTZEFF NICHOLAS B..... 212 671
Ultraviolet spectral evolution and heavy element abundances in Nova Coronae Austrinae 1981, WILLIAMS R.E., NEY E.P., SPARKS W.M., STARRFIELD S.G., WYCKOFF S., TRURAN J.W..... 212 753
The infrared spectra of red variables - I. Super-lithium-rich stars, WHITELOCK P.A., CATCHPOLE R.M..... 212 873
HR 5637: the unveiling of a binary, NOORDANUS BARBARA, COTTRELL P.L., AKE III THOMAS B..... 212 931
Bright red variables of large amplitude in the Magellanic Clouds, LLOYD EVANS T..... 212 955
Erratum: The distribution ofluminors starts at (l,b) = 245°, 0° in Puppis, REED C., FITZGERALD M.P..... 212 987
The rotational velocity of the rapidly oscillating Ap star HD 83368, CARNEY BRUCE W., PETERSON RUTH C..... 212 33P
New identifications of Fe XVII spectral lines in solar flares, FELDMAN U., DOSCHEK G.A., SEELY J.F..... 212 41P
Investigation of a wind model for cataclysmic variable ultraviolet resonance line emission, DREW Janet, VERBUNT Frank..... 213 191
New light on faint stars - VII. Luminosity and mass distributions in two high galactic latitude fields, GILMORE Gerard, REID Neill, HEWETT Paul..... 213 278
The recurrent nova U Scorpii in post-outburst quiescence, HANES David A..... 213 443
Optical photometry and spectroscopy of the flare star Gliese 229 (=HD 42581), BYRNE P.B., DOYLE J.G., MENZIES J.W..... 214 119
The chemical composition of the Nova Muscae 1983 ejecta, DE FREITAS PACHECO J.A., CODINA S.J..... 214 481
Derivation of atmospheric structure from emission-line fluxes, JORDAN C..... 214 1P
The spectrum of R Cygni during its exceptionally low maximum of 1983, WALLERSTEIN George, HINKLE KENNETH H., DOMINY James F., MATTEI Janet A., SMITH Verne V., OKE J.B..... 215 67

Polarimetry, photometry and spectroscopy of the intermediate polar V1233 Sgr, WATTS D.J., GILES A.B., GREENHILL J.G., HILL K., BAILEY J..... 215 83
Shock-heated gas in the I Per OB association, McLACHLAN A., NANDY K..... 215 473
IUE observations of HD 36705, RUCINSKI S.M..... 215 591
The Mg II emission in W UMa-type binaries, RUCINSKI S.M..... 215 615
The interstellar 4430 Å band in the Small Magellanic Cloud, HOUZIAUX L., NANDY K., MORGAN D.H..... 215 5P
Line-strength gradients in NGC 5813, EFSTATHIOU G., GORGAS J..... 215 37P
New line identifications in the blue spectra of Hg-Mn stars, GUTHRIE B.N.G. .. 216 1
A spectroscopic survey of faint ultraviolet excess stellar objects BOYLE B.J., FONG R., SHANKS T., CLOWES R.G. 216 623
On the nature of the neutron exposure event of U Aquarii, MALANEY R.A. 216 743
A survey of Mg II h and k emission in near-solar-type stars, DOHERTY L.R. 217 41
Theoretical Stokes profiles for magnetic stars - I. Rotation, line asymmetries and crossover, STIFT Martin J. 217 55
Element abundances from solar flare spectra, DOSCHEK G.A., FELDMAN U., SEELY J.F. 217 317
Transition probabilities in CrI, TOZZI G.P., BRUNNER A.J., HUBER M.C.E. 217 423
The structure of NGC 3587, the Owl nebula, SABBADIN Franco, BIANCHINI Antonio, ORTOLANI Sergio, STRAFELLA Francesco 217 539
IUE high-resolution observations of Mira B, CASSATELLA A., HOLM A., REIMERS D. AKE T., STICKLAND D.J. 217 589
Collisional broadening of the sodium D lines by atomic hydrogen, SMITH G., MONTEIRO T.S., DICKINSON A.S., LEWIS E.L. 217 679
Photometric and spectroscopic evidence from non-radial pulsation in the extreme helium star BD-9° 4395, JEFFERY C.S., SKILLEN Ian, HILL P.W., KILKENNEY D., MALANEY R.A., MORRISON K. 217 701

STARS - STRUCTURE AND EVOLUTION OF

Mechanics of the affine star model, CARTER B., LUMINET J.P..... 212 23
Tidal squeezing of stars by Schwarzschild black holes, LUMINET JEAN-PIERRE, MARCK JEAN-ALAIN..... 212 57
Secular evolution of magnetic cataclysmic variables, KING A.R., FRANK J., RITTER H..... 213 181
The outcome of accretion on to a fully convective star: expansion or contraction? PRIALNIK Dina, LIVIO Mario 216 37
The adiabatic stability of stars containing magnetic fields - VI. The influence of rotation, PITTS E., TAYLER R.J. 216 139

STARS - SYMBIOTIC

On the ultraviolet spectrum of AG Peg, PENSTON M.V., ALLEN D.A..... 212 939

STARS - VARIABLE

On the evolution of accretion disc flow in cataclysmic variables - III. Outburst properties of constant and uniform-α model discs, LIN D.N.C., PAPALOIZOU JOHN, FAULKNER JOHN..... 212 105
Dwarf novae in outburst: simultaneous ultraviolet and optical observations of RU Pegasi and TZ Persei, LA DOUS C., VERBUNT F., SCHOEMBS R., ARGYLE R.W., JONES D.H.P, SCHWARZENBERG-CZERNY A., HASSALL B.J.M., PRINGLE J.E., WADE R.A. 212 231
A search for low-harmonic pulsation in the Ap star CS Vir, KREIDL TOBIAS J.... 212 337
CCD observations of the RR Lyrae stars in NGC 2210 and the distance to the Large Magellanic Cloud, WALKER ALISTAIR R..... 212 343
Period change in Magellanic Cloud Cepheids, DEASY H.P., WAYMAN P.A..... 212 395
EXOSAT soft X-ray observations of EX Hydrae, CORDOVA F.A., MASON K.O., KAHN S.M..... 212 447
Optical spectroscopy and photometry of the periodic X-ray transient A0538-66 (XO535-668) during an outburst and an OFF state, CORBET R.H.D., MASON K.O., CORDOVA F.A., BRANDUARDI-RAYMONT G., PARMAR A.N..... 212 565
The emission line profiles of 2A 0311-227, MUKAI KOJI, CHARLES PHILIP..... 212 609
Instability in the red star of semi-detached binary systems, EDWARDS D.A..... 212 623
Dwarf novae in outburst: simultaneous ultraviolet and optical observations VW Hydri, SCHWARZENBERG-CZERNY A., WARD MARTIN, HANES D.A., JONES D.H.P., PRINGLE J.E., VERBUNT F., WADE R.A..... 212 645
Line doubling in the 272-day long-period variable V Cancri, DOMINY JAMES F., WALLERSTEIN GEORGE, SUNTZEFF NICHOLAS B..... 212 671
Simultaneous linear and circular polarimetry of EF Eri, CROPPER MARK..... 212 709
Erratum: Flux density and structure variations in SS 433, SPENCER R.E..... 212 751

A period-luminosity relation for Mira variables in globular clusters and its impact on the distance scale, MENZIES J.W., WHITELOCK P.A..... 212 783
BVI reddenings of Magellanic Cloud Cepheids, CALDWELL J.A.R., COULSON I.M..... 212 879
Mapping of the beta Cepheid instability strip: the cluster NGC 6231, BALONA L.A., ENGELBRECHT C.A..... 212 889
The old nova GK Per: discovery of the X-ray pulse period, WATSON M.G., KING A.R., OSBORNE J..... 212 917
Bright red variables of large amplitude in the Magellanic Clouds, LLOYD EVANS T..... 212 955
Rapid oscillations in CPD - 48° 1577, WARNER BRIAN, O'DONOGHUE DARRAGH, ALLEN SUE 212 9P
The rotational velocity of the rapidly oscillating Ap star HD 83368, CARNEY BRUCE W., PETERSON RUTH C..... 212 33P
Secular evolution of magnetic cataclysmic variables, KING A.R., FRANK J., RITTER H..... 213 181
Investigation of a wind model for cataclysmic variable ultraviolet resonance line emission, DREW Jane, VERBUNT Frank..... 213 191
The dynamical behaviour of SS 433, COLLINS George W. II..... 213 279
Episodic accretion events on to a white dwarf, PRIALNIK Dina, LIVIO Mario..... 213 407
The recurrent nova U Scorpii in post-outburst quiescence, HANES David A..... 213 443
The accuracy of the quadrupole approximation for the gravitational radiation from pulsating stars, BALBINSKI Eugene, DETWEILER Steven, LINDBLOM Lee, SCHUTZ Bernard F..... 213 553
An algorithm for significantly reducing the time necessary to compute a Discrete Fourier Transform periodogram of unequally spaced data, KURTZ D.W... 213 773
CCD photometry of Galactic clusters containing Cepheid variables - I. Lyngå 6, WALKER Alistair R..... 213 889
JHKL observations of IRAS sources - II, WHITELOCK Patricia..... 213 51P
Photometry of the extreme helium star BD + 1° 4381, JEFFERY C.S., MALANEY R.A. 213 61P
New radial pulsation constants for the β Cephei variables, SHOBBROOK R.R..... 214 33
CCD photometry of galactic clusters containing Cepheid variables - II. NGC 6067 WALKER Alistair R..... 214 45
Optical photometry and spectroscopy of the flare star Gliese 229 (=HD 42581), BYRNE P.B., DOYLE J.G., MENZIES J.W..... 214 119
EX Hya: the slowest DQ Her star?, JABLONSKI F., BUSKO I.C..... 214 219
A survey for red variables in the LMC I, GLASS I.S., REID Neill..... 214 405
A digital technique for the separation of the eclipses of a white dwarf and an accretion disc, WOOD J.H., IRWIN M.J., PRINGLE J.E..... 214 475
Photometry and frequency analysis of line profile variables, BALONA L.A., ENGELBRECHT C.A..... 214 559
Erratum: BVI reddenings of Magellanic Cloud Cepheids by CALDWELL J.A.R., COULSON I.M..... 214 639
The spectrum of R Cygni during its exceptionally low maximum of 1983, WALLERSTEIN George, HINKLE KENNETH H., DOMINY James F., MATTEI Janet A., SMITH Verne V., OKE J.B..... 215 67
Pulsational mode constraints for the rapidly oscillating Ap star HR 1217, KURTZ D.W., SCHNEIDER Hartmut, WEISS Werner W..... 215 77
Continuum energy distribution and photometric behaviour of π Aqr, GORAYA P.S.. 215 265
EXOSAT MEDA observations of Cygnus X-3, WILLINGALE R., KING A.R., POUNDS K.A.. 215 295
Absorption dips and the geometry of the AM Herculis systems, KING A.R., WILLIAMS G.A..... 215 1P
The extreme carbon star CRL 3099, FEAST M.W., WHITELOCK P.A., CATCHPOLE R.M., ROBERTS G., CARTER B.S..... 215 63P
X-ray emission from the cataclysmic variable PG0834+488, COOK M.C..... 215 81P
Periodicity and pulsational mode of five bright yellow supergiants, ARELLANO FERRO A. 216 571
The Cepheid HD 144972 and the problematic distance to the open cluster NGC 6067, COULSON Iain M., CALDWELL John A.R. 216 671
VJHK observations of the RR Lyrae star VY Serpentis, LONGMORE A.J., FERNLEY J.A., JAMESON R.F., SHERRINGTON M.R., FRANK J. 216 873
Eclipse maps of the accretion disc in RW Trianguli, HORNE Keith, STEINING Rae F..... 216 933
A frequency analysis of a newly discovered Rapidly Oscillating Ap star, HD 6532, KURTZ D.W., KREIDL Tobias J. 216 987
The Ap star 53 Cam: another 21 Com?, Kreidl Tobias J. 216 1013
Differential photometry of the δ Sct stars HR 151 and HR 239, Kreidl Tobias J. 216 1017

The origin of the infrared light of cataclysmic variable stars, BERRIMAN G., SZKODY P., CAPPS R.W. 217 327
Photometric and spectroscopic evidence from non-radial pulsation in the extreme helium star BD-9° 4395, JEFFERY C.S., SKILLEN Ian, HILL P.W., KILKENNEY D., MALANEY R.A., MORRISON K. 217 701
IUE observations of RCB stars during extinction minima, EVANS A., WHITTET D.C.B., DAVIES J.K., KILKENNY D., BODE M.F. 217 767
CP Puppis and VG1500 Cygni, WARNER Brian 217 1P
On the amplitude decrease of the B Cephei stars Spica and 16 Lacertae, BALONA L.A. 217 17P
The origin of the magnetic field distribution in accreting white dwarfs, KING A.R. 217 23P

STARS - VELOCITIES OF
Photoelectric radial velocities, Paper XII. The orbits of another four spectroscopic binaries in the Clube Selected Areas, GRIFFIN R.F..... 212 663
Radial velocities of blue horizontal branch field stars, SOMMER-LARSEN J., CHRISTENSEN P.R..... 212 851
A search for radial velocity variations in the central stars of southern planetary nebulae and planetary-like objects, AUGENSEN H.J..... 213 399
The Cepheid HD 144972 and the problematic distance to the open cluster NGC 6067, COULSON Iain M., CALDWELL John A.R. 216 671

SUN
Possible evidence for stochastic acceleration of electrons in solar hard X-ray bursts observed by SMM, BROWN JOHN C., LORAN JON M..... 212 245
New identifications of Fe XVII spectral lines in solar flares, FELDMAN U, DOSCHEK G.A., SEELY J.F..... 212 41P
Population mechanisms for the He^+ n=3 levels determined from measurements of the solar 1640 Å emission, SEELY J.F., FELDMAN U..... 213 417
An upper limit for the solar acceleration, THORNBURG Jonathan..... 213 27P
Element abundances from solar flare spectra, DOSCHEK G.A., FELDMAN U., SEELY J.F. 217 317
Transition probabilities in CrI, TOZZI G.P., BRUNNER A.J., HUBER M.C.E. 217 423
Collisional broadening of the sodium D lines by atomic hydrogen, SMITH G., MONTEIRO T.S., DICKINSON A.S., LEWIS E.L. 217 679

SUPERNOVAE AND SUPERNOVA REMNANTS
The destruction of dust grains in collisions of a supernova with a circumstellar medium, ITOH HIROSHI..... 212 309
Structure of the Crab Nebula: intensity and polarization at 20 cm, VELUSAMY T..... 212 359
A model for SNR evolution in a cloudy medium and its application to N49, SHULL Jr. PETER, DYSON J.E., KAHN F.D., WEST KYM A..... 212 799
A recurrence of the Cassiopeia A flux anomaly, WALCZOWSKI L.T., SMITH K.L..... 212 27P
An upper limit on the proper motion of optical filaments near the Cetus Arc (Loop 2), JONES A.W., MEABURN J..... 213 711
Einstein X-ray observations of the Monoceros supernova remnant, LEAHY D.A., NARANAN S., SINGH K.P..... 213 15P
Erratum (missing plate): An upper limit on the proper motion of optical filaments near the Cetus Arc (Loop 2), JONES A.W., MEABURN J., (Vol. 213, p. 711)..... 215 159
Shock-heated gas in the I Per OB association, McLACHLAN A., NANDY K..... 215 473
Optical spectrophotometric study of supernova remnants in the Large Magellanic Cloud, DANZIGER I.J., LEIBOWITZ E.M. 216 365
A new galactic supernova remnant, G312.4-0.4, CASWELL J.L., BARNES Peter J.... 216 753
The expansion of Tycho's supernova remnant as determined by a new algorithm for comparing data, TAN Sze M., GULL Stephen F. 216 949
Depletion of elements in shock-driven gas, GONDHALEKAR P.M. 216 57P
X-ray observations of the supernova remnant W44, SMITH A., JONES L.R., WATSON M.G., WILLINGALE R., WOOD N., SEWARD F.D. 217 99

ULTRAVIOLET ASTRONOMY
Dwarf novae in outburst: simultaneous ultraviolet and optical observations of RU Pegasi and TZ Persei, LA DOUS C., VERBUNT F., SCHOEMBS R., ARGYLE R.W., JONES D.H.P., SCHWARZENBEG-CZERNY A., HASSALL B.J.M., PRINGLE J.E., WADE R.A. 212 231

Dwarf novae in outburst: simultaneous ultraviolet and optical observations VW Hydri, SCHWARZENBERG-CZERNY A., WARD MARTIN, HANES D.A., JONES D.H.P., PRINGLE J.E., VERBUNT F., WADE R.A. 212 645
Ultraviolet spectral evolution and heavy element abundances in Nova Coronae Austrinae 1981, WILLIAMS R.E., NEY E.P., SPARKS W.M., STARRFIELD S.G., WYCKOFF S., TRURAN J.W. 212 753
On the ultraviolet spectrum of AG Peg, PENSTON M.V., ALLEN D.A. 212 939
New identifications of Fe XVII spectral lines in solar flares, FELDMAN U., DOSCHEK G.A., SEELY J.F. 212 41P
Population mechanisms for the He^+ n=3 levels determined from measurements of the solar 1640 Å emission, SEELY J.F., FELDMAN U. 213 417
Oscillator strengths for transitions in N I and the interstellar abundance of nitrogen, HIBBERT A., DUFTON P.L., KEENAN F.P. 213 721
Empirical effective temperatures of late O, B, A and early F stars, THEODOSSIOU E. 214 327
Detailed observations of NGC 4151 with IUE - IV. Absorption line spectrum and variability, BROMAGE G.E., BOKSENBERG A., CLAVEL J., ELVIUS A., PENSTON M.V., PEROLA G.C., PETTINI M., SNIJDERS M.A.J., TANZI E.G., ULRICH M.H. 215 1
Shock-heated gas in the I Per OB association, McLACHLAN A., NANDY K. 215 473
IUE observations of HD 36705, RUCINSKI S.M. 215 591
The Mg II emission in W UMa-type binaries, RUCINSKI S.M. 215 615
Condensation of dust around the WC7 star HD 192641 (WR 137), WILLIAMS P.M., LONGMORE A.J., VAN DER HUCHT K.A., TALEVERA A., WAMSTEKER W.M., ABBOTT D.C., TELESCO C.M. 215 23P
IRAS observations of MKN 501 with quasi-simultaneous observations at radio, near-infrared and ultraviolet wavelengths, SEMBAY S., COE M.J., CLEMENT R, DEAN A.J., HANSON C.G., FERRARI-TONIOLO M., PERSI P., SPINOGLIO L., BASSANI L., DI COCCO G., MACDOUGALL J.R., ELSMORE B. 216 121
A superoutburst of the dwarf nova EK Trianguli Australis, HASSALL B.J.M. 216 335
Dwarf novae in outburst: monitoring WX Hydri with IUE, HASSALL B.J.M., PRINGLE J.E., VERBUNT F. 216 353
UV and optical observations of PG 1351+64, a bright Seyfert galaxy or a low-luminosity QSO, TREVES A., DREW J., FALOMO R., MARASCHI L., TANZI E.G., WILSON R. 216 529
A survey of Mg II h and k emission in near-solar-type stars, DOHERTY L.R. 217 41
Abundances of O, Mg, S, Cr, Mn, Ti, Ni and Zn from absorption lines of neutral gas in the Large Magellanic Cloud in front of R136, de BOER Klaas S., FITZPATRICK Edward L, SAVAGE Blair D. 217 115
IUE high-resolution observations of Mira B, CASSATELLA A., HOLM A., REIMERS D. AKE T., STICKLAND D.J. 217 589
Observations of Comet Crommelin - IV. Upper limit on the optical depth in the coma at ultraviolet wavelenths, EVANS A., ZARNECKI J.C., McDONNELL J.A.M., BODE M.F., TAYLOR G.E., MORLEY T. 217 669
Observations of Comet Crommelin - V. Anomalous hydrogen source, WALLIS M.K., CAREY W.C. 217 673
IUE observations of RCB stars during extinction minima, EVANS A., WHITTET D.C.B., DAVIES J.K., KILKENNY D., BODE M.F. 217 767
The ultraviolet variability of the BL Lacertae object OJ287, HANSON C.G., COE M.J. 217 831

X-RAY ASTRONOMY

The Galactic population and birthrate of X-ray pulsars, BLAIR D.G., CANDY B.N. 212 219
Possible evidence for stochastic acceleration of electrons in solar hard X-ray bursts observed by SMM, BROWN JOHN C., LORAN JON M. 212 245
EXOSAT soft X-ray observations of EX Hydrae, CORDOVA F.A., MASON K.O., KAHN S.M. 212 447
Pair production, Comptonization and dynamics in astrophysical plasmas, GUILBERT P.W., STEPNEY SUSAN 212 523
Optical spectroscopy and photometry of the periodic X-ray transient A0538-66 (X0535-668) during an outburst and an OFF state, CORBET R.H.D., MASON K.O., CORDOVA F.A., BRANDUARDI-RAYMONT G., PARMAR A.N. 212 565
The old nova GK Per: discovery of the X-ray pulse period, WATSON M.G., KING A.R., OSBORNE J. 212 917
On the tidal evolution of massive X-ray binaries: the tidal evolution time-scales for very long orbital periods, PAPALOIZOU J.C.B., SAVONIJE G.J... 213 85
OSRT observations of the Sco X-1 region at 327 MHz, VELUSAMY T., PRAMESH RAO A., SUKUMAR S. 213 735

High spectral resolution observations of the coronal X-ray emission from the RS CVn binary Sigma Corona Borealis, AGRAWAL P.C., MARKERT T.H., RIEGLER G.R. 213 761
X-ray scattering by intergalactic dust, EVANS A., NORWELL G.A., BODE M.F..... 213 1P
Einstein X-ray observations of the Monoceros supernova remnant, LEAHY D.A., NARANAN S., SINGH K.P..... 213 15P
EXOSAT MEDA observations of Cygnus X-3, WILLINGALE R., KING A.R., POUNDS K.A..... 215 295
r models of cluster X-ray sources, PALLISTER Ian C..... 215 335
The gaseous environments of double radio galaxies, MILLER L., LONGAIR M.S., FABBIANO G., TRINCHIERI G., ELVIS M..... 215 799
Absorption dips and the geometry of the AM Herculis systems, KING A.R., WILLIAMS G.A..... 215 1P
The identification of H2311+77 with HD 220140, a probable RS CVn star, PRAVDO S.H., WHITE N.E., GIOMMI P..... 215 11P
CCD spectroscopy of the active galaxies NGC 5506 and NGC 7314, MORRIS Simon L., WARD Martin J..... 215 57P
X-ray emission from the cataclysmic variable PG0834+488, COOK M.C..... 215 81P
A theoretical model of the M87 jet, FALLE S.A.E.G., WILSON M.J. 216 79
An X-ray, optical and radio study of PKS 0745-191: a massive cooling flow, FABIAN A.C., ARNAUD K.A., NULSEN P.E.J., WATSON M.G., STEWART G.C., MCHARDY I., SMITH A., COOKE B., ELVIS M., MUSHOTZKY R.F. 216 923
Simultaneous X-ray and optical observations of the X-ray dip source X1755-338, MASON K.O., PARMAR A.N., WHITE N.E. 216 1033
Serendipitous EXOSAT sources in the region of the Coma cluster: active galactic Nuclei with steep X-ray spectra, BRANDUARDI-RAYMONT G., MASON K.O., MURDIN P.G., MARTIN C. 216 1043
The discovery of low-level iron K line emission from Cyg X-1, BARR P., WHITE N.E., PAGE C.G. 216 65P
Einstein observations of the Rosette nebula and the Mon OB2 association, LEAHY D.A. 217 69
X-ray observations of the supernova remnant W44, SMITH A., JONES L.R., WATSON M.G., WILLINGALE R., WOOD N., SEWARD F.D. 217 99
EXOSAT observations of a strong soft X-ray excess in MKN 841, ARNAUD K.A., BRANDUARDI-RAYMONT G., CULHANE J.L., FABIAN A.C., HAZARD C., McGLYNN T.A., SHAFER R.A., TENNANT A.F., WARD M.J. 217 105
A model for the outburst of nova RS Ophiuchi in 1985, BODE M.F., KHAN F.D. ... 217 205
Angular distribution and polarization of X-ray-burster radiation (during stationary and flash phases), LAPIDUS I.I., SUNYAEV R.A. 217 291
Element abundances from solar flare spectra, DOSCHEK G.A., FELDMAN U., SEELY J.F. 217 317
Continuous rapid X-ray variability and spectral changes in NGC 4051, LAWRENCE A., WATSON M.G., POUNDS K.A., ELVIS Martin 217 685